6-2017

Sight is a Faculty; Seeing, an Art: George Perkins Marsh, the Classical Environment, and 19th-Century Conservation Policy

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"Sight is a Faculty; Seeing, an Art": George Perkins Marsh, the Classical Environment, and 19th-Century Conservation Policy

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Submitted in partial fulfillment
of the requirements for
Honors in the Department of Classics and Environmental Policy

UNION COLLEGE

March 16, 2017

ABSTRACT

HALSEY, SARA "Sight is a Faculty; Seeing, an Art": George Perkins Marsh, the Classical Environment, and 19th-Century Conservation Policy. Department of Classics and Environmental Policy, June 2017.

ADVISORS: Stacie Raucci and Andrew Morris

This thesis examines George Perkins Marsh, renowned as the father of conservation, his work *Man and Nature* (1864), and his use of Classics to make the suggestion that America, like the Roman Empire, would decline as a result of human caused environmental degradation. Marsh uses specific authors and passages from antiquity to make his claim more meaningful to his contemporaries, contributing to the significant impact that he had on America's first round of conservation policy. Marsh was raised in Vermont and observed the negative effects of continued land exploitation, which he further confirmed after he spent time in the Mediterranean as a foreign diplomat. Marsh studied Classics from a young age and used his extensive knowledge to support his claim that the decline of the Roman Empire was, in part, a result of an extended abuse of the land. The Roman metaphor was popular in the late 19th and early 20th century, and Marsh's take on it became known to virtually all interested in the early field of conservation.

Marsh's work influenced the creation of the first Division of Forestry, which eventually became the Forest Service and all those involved in its formation. This thesis is at the crossroads of Environmental and Classical studies, two increasingly interdisciplinary fields. The influence and impact of the classical world on Marsh and his work has not been examined thoroughly previous to this thesis. As environmental studies becomes an increasingly established field, environmental

history has emerged as a branch to examine our past relationship with the natural world and the decisions that have been made regarding it. This provides insights into the conditions that exist today and hindsight for more informed decisions in the future. Marsh was revolutionary in his notion that human caused environmental degradation contributes to the decline of civilizations, and provides an effective example for historical insight to make the argument for the conservation of the environment.

Preface

What do Environmental Studies and Classical Studies have to do with each other? For me, actually a lot. My first interdisciplinary research combining the two fields of study was a paper on Roman agricultural practices and the resulting impact on the environment, mainly through deforestation and soil erosion, and the relationship of the typical citizen with the natural world, titled "Roman Agriculture: A Connection to Our Past Environment." After this research I became increasingly interested in the value of studying the classical world for understanding the modern environmental movement. This background eventually led me to the topic for this thesis. My research focuses on George Perkins Marsh, celebrated as the father of conservation, and his work *Man and Nature* published in 1864, and his use of Classics to make the claim that America, like the Roman Empire, would decline due to human caused environmental degradation and the impact of the argument.

As Environmental Studies becomes an increasingly established field, environmental history has emerged as a branch of history, influenced more generally by the revision in environmental values. More recently, Classics scholars have begun to examine the ancient environment. J. Donald Hughes has produced the most comprehensive work on the ancient environment with his book *Environmental Problems of Ancient Greek and Romans*, published in 2014, the first of which edition was titled *Pan's Travails: Environmental Problems of the Ancient Greek*

and Romans, published in 1994.[1] Hughes notes the lack of scholarship on the natural world in antiquity, and began to bridge the gap in his work. Although Hughes first published his book in 1994, there have been surprisingly little scholarly studies on the subject since. As Hughes suggests, these studies on the ancient environment can be difficult due to lack of evidence, direct sources, and scientific data that are necessary to provide information on historical environmental changes. Hughes hopes that future studies will bring together historians, archaeologists, and scientists to share their information and provide collective, mass data on historical environmental changes.[2] Environmental history is a remarkably interdisciplinary field of study, and can benefit from overlap in a variety of subjects such as economics, law and even Classics.

Examining the relationship that civilizations have had with the natural world provides numerous insights into the conditions that exist today. For example, tracing the historical attitudes towards agriculture provides an illuminating timeline of development into what it is today. It also can serve as a paradigm for or against certain practices and perceptions regarding the environment. For instance, the exploitation land in the American West at an unsustainable rate for the rapid population growth and agricultural practices applied at the time led to the infamous 1930s Dust Bowl. With hindsight, the American government created legislation and agencies to ensure it would not happen again, at least any time soon. But these

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[1] J. Donald Hughes, *Environmental Problems of the Greek and Romans: Ecology in the Ancient Mediterranean* (Baltimore: John Hopkins University Press, 2004).
[2] Hughes, *Environmental Problems*, 6-7.

lessons seem to be forgotten too quickly, and conditions leading up to them begin again. History continually fails to be heeded by civilizations.

Studying environmental history continually shows that the environment must be respected, or there will be serious ramifications. Marsh was revolutionary in his realization and publication of the notion that mistreatment of the natural world could lead to serious and long-term consequences. He used the example of the Roman Empire and the connection between environmental degradation and its decline to make the argument that America had a similar future if they did not adopt conservation measures. Marsh was unique in using historical insight to make the argument for the conservation of the environment. I use the warnings of both Marsh and his example of the Roman Empire to suggest that they are still applicable, and to see how Marsh's contemporaries absorbed that issue. We must use historical insight on environmental issues to make more educated and respectful decisions, or face the consequences.

No previous scholarly work has focused on Marsh's use of antiquity and the continuation of the Roman metaphor as a call for conservation policy in the United States. I will examine the Classical authors that Marsh includes in *Man and Nature*, what he does with the Latin that he includes, and how prevalent his argument from antiquity was to his contemporary conservationists and their ideas. I will also provide context for the standard Classical education in the 19th century and environmental degradation in the Mediterranean basin. I then will look at the influence of Marsh on the early conservation movement and the continuation of the Roman metaphor. Scholars have discussed the use of classical metaphors at the

turn of the 20th century politics, but I will add its use in the conservation movement. Marsh was one of the earliest scholars to observe and comprehend the widespread and long-term destruction that human exploitation could have on the land, and succinctly summarized this realization into the parable of the decline of the Roman Empire. Marsh eloquently stated, "Sight is a faculty; seeing, an art,"[3] an art that Marsh himself had about the consequences of human caused environmental degradation.

[3] George Perkins Marsh, *Man and Nature, or Physical Geography as Modified by Human Action* (Miami: HardPress Publishing), 10.

Chapter 1: The Life of George Perkins Marsh

Biography

George Perkins Marsh was born in Woodstock, Vermont in 1801 surrounded by the rolling Green Mountains that would inspire his greatest work, *Man and Nature*. His father Charles Marsh was a lawyer and the U.S. District Attorney for the state of Vermont. The Marsh family owned a large amount of cultivated land, as well as much of the adjacent Mount Tom. Troubled by an eye affliction at a young age, Marsh was forced to give up his avid reading for long periods of time and immerse himself and his other senses in the natural world that surrounded him. He became deeply connected to and aware of the environment at this pivotal age, and this close relationship continued through his entire life. Once vastly wooded, much of Vermont was being transformed into fields and pastures within Marsh's lifetime. The leading cause of the clearing of forests during the 19th century in Vermont was a demand for timber for various uses including buildings and fuel, but conversion of forested land into cropland and grazing land also had a significant impact. Even as a young child Marsh began noticing the negative effects that deforestation had on the environment, including on fish and bird populations, the soil, and the aesthetic beauty of the Green Mountains.[1] Marsh's location shaped his early years and his subsequent interest in and concern over the impact that human actions have on the environment.

[1] David Lowenthal. *George Perkins Marsh, Prophet of Conservation* (Seattle & London: University of Washington Press, 2000), 3-20.

A scholar at a young age, Marsh read anything and everything that he could obtain. As a result of this, his ocular disorder grew worse, preventing him from reading off and on for years. Marsh's memory and auditory sensitivity, however, were strengthened, making nature more enjoyable for him and later benefiting his scholarly pursuits. His father Charles taught him about tree identification and geography that would become a large part of his later studies. His brothers taught him Latin and Greek. His formal schooling was often interrupted by bouts of illness. Marsh was sent to be the pupil of a minister in Maine at twelve years old, then to Phillips Academy at Andover, Massachusetts for more extensive religious education. Next, Marsh attended Dartmouth in Hanover, New Hampshire. However, Marsh claims that his overall education was obtained much more from his extensive reading and work outside of the classroom than what was taught to him at school, which was mostly limited to mathematics, theology, religion, and some politics.[2]

George married Harriet Buell in 1828, and a year later they had their first son, Charles Buell Marsh. Three years later they had their second son, George Ozias Marsh. Harriet suffered from a heart condition and died on August 16, 1833, followed by their first son Charles days later. After a period of solitude and mourning, Marsh met Caroline Crane, and a year later they were married. Shortly after their marriage, Caroline became ill with an undiagnosed but chronic condition that confined her to sitting for most of the rest of her life, but she remained an important friend and correspondent for Marsh for her entire life. Marsh's close

[2] Lowenthal, *George Perkins Marsh*, 20-33.

family supported him throughout his many careers and followed him across countries.

A true Renaissance man, Marsh pursued many different careers in his life. According to David Lowenthal, Marsh's most recent biographer, Marsh was, "no professional ecologist but a self-trained, small-town Vermont lawyer and politician, a self-styled mechanic, a professional diplomat, and an omnicompetent scholar."[3] Poor health, family problems, and business failures led Marsh from one profession to another. His first job was as a Professor of Latin and Greek at the Norwich Academy in Vermont, where he began learning German and Scandinavian languages in his spare time. Once again bothered by his eye affliction, Marsh was unable to read and instead began studying law. He was able to attend courthouses and listen to cases as a substitute for reading. Later he became an attorney of the Windsor Country Court in 1825 in Burlington, Vermont. Marsh was a successful attorney but his law career began crumbling with his partner's death. Marsh did not get along with his second partner, while his personal life suffered from the death of his wife and child, leading him to leave his career in law. Marsh then moved into business by teaming up to recharter a mercantile firm as a private bank, causing him to go into debt when the assets became worthless. His next business was the Burlington Mill Company, but this soon failed due to tariff cuts and low cost of wool in the mid-1800s.[4]

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[3] David Lowenthal, "Introduction," in *Man and Nature or, Physical Geography as Modified by Human Action* by George Perkins Marsh, HardPress Publishing, 11.
[4] Lowenthal, *George Perkins Marsh*, 27-42.

Unsuccessful in his law and business careers, Marsh turned to politics. In 1835 he was elected as a member of the Whig party to Vermont State's Supreme Legislative Council as chairman of the Judiciary Committee. During Marsh's time, he helped to choose a state governor and dealt with private bills for charter requests. Imprisonment of debtors was a major issue in Vermont at this time, and the Council worked towards amending the law by making punishment less severe, which Marsh wholeheartedly supported. However, Marsh thwarted an attempt to completely eliminate debt imprisonment. The backlash against the retention of debt imprisonment ultimately led to a vote to replace the Council with a Senate voted on by the people, and with the end of the Council, Marsh lost his position.[5]

In 1843, Marsh was elected to the 28th Congress as a Whig Party representative, and moved his ailing family to Washington, D.C. He remained in Congress for six years. During this time Marsh became involved with the Smithsonian Institute. The institute had recently been funded by British chemist James Smithsonian and there was significant debate around what its purpose should be, some wanting it to be utilitarian and others wanting it to be intellectual. Selected for the Smithsonian committee in Congress, Marsh advocated to appropriate half of the funds for a library and the other half for schools and agriculture investigations, balancing between the scholarly and practical. He wanted to see a great national library for Americans to learn about their heritage. He connected his friend and protégé Spencer F. Baird with the Institution, who quickly climbed the ladder from curator to secretary of the whole organization. Baird

[5] Lowenthal, *George Perkins Marsh*, 42-47.

established a global exchange network of specimens and samples from the natural world and built the Smithsonian's collections.[6] Always connected with the natural and scientific world, Marsh contributed to the modern mission of the Smithsonian, "shaping the future by preserving our heritage, discovering new knowledge, and sharing our resources with the world."[7]

Marsh's next career began in 1849 when President Zachary Taylor, a connection through a mutual friend, appointed Marsh to be the Minister to Turkey. This appointment was surprising to many but generally was a well-accepted decision. Marsh and his family took an extended route to the Ottoman Empire through Europe, fulfilling his longstanding dream of traveling and absorbing as much about the cultures as possible. They had a difficult time adjusting to Constantinople, leading them to rent a house in the Greek village Therapia outside of the capital. Although paid more than previously, Marsh and his family found it difficult to live on his salary. After being denied a raise, Marsh decided to travel around the Ottoman Empire as a way to spend less money and increase his knowledge of the area. He visited Egypt, Israel and Palestine, developing a fondness for camels and collecting various new species to send back to the Smithsonian in a continuation of his interest in natural history. During these travels he began developing further notions on the extent of man's impact on the environment over time.

During Marsh's time abroad, he was constantly observing and recording the natural world around him. In a letter to Spencer Baird, Marsh documents all of the

[6] Lowenthal, *George Perkins Marsh*, 68-87.
[7] "Mission and Vision," Smithsonian.

new species of plants and animals that he observed in great detail and the ones that he collected to send back to the Smithsonian. He discusses the natural features of the landscapes that he visits, usually remarking on their beauty, optimality, or disappointment. During his visit to Italy during the winter of 1849, Marsh wrote to Baird, "Vesuvius we saw in all its glory. I went to the mountain almost every day or night during the eruption, and of course got a good idea of all the phases of that sublime phenomenon. In short, I enjoyed more during that winter, than I thought I could in the rest of my life."[8] Marsh also began to observed environmental degradation and issues that resulted from it during his travels in the Mediterranean, many of which were similar to what he noticed in Vermont. Marsh started to formulate the metaphor between environmental misuse and the decline of the Roman Empire during his travels abroad. In his address at the New Hampshire Agricultural Society in 1856, Marsh stated,

> When Rome was at her utmost height of power and glory, her most gifted sons did not disdain to study theory of rural husbandry, and even to give practical rule for the conduct of its minutest details. When Rome relapsed into that state of semi-barbarism, which is so apt to follow an age of great military exploitation, agriculture was despised as a plebian occupation, the law of nature which its successful practice rests were forgotten, and it became as unintelligent and unproductive a calling, as it was though vulgar and humble.[9]

Ten years later he would develop this metaphor into the foundations for his book *Man and Nature*. Marsh also observed the actions that Europeans were taking to mitigate these environmental destructions such as curbing their tree felling and discussed the need for America to adopt similar preventative practices.

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[8] Caroline Crane Marsh, *Life and Letters of George Perkins Marsh* (New York: C. Scribner's Sons, 1888), 174-5.
[9] Trombulak, *So Great a Vision*, 36-7.

In 1852, after his travels had ended, Marsh was sent to Athens to deal with issues about the newly independent nation of Greece, as well as a situation involving an American Reverend, Jonas King. King was on trial for a property disagreement and was accused of attempting to convert people to Christianity, but Marsh deemed the trial unfair and thought that the U.S. should intervene for King. The trial was long and tedious and left Marsh disenchanted with the realities of modern Greece in comparison to his classical notions of it. Marsh and his family returned to Constantinople, but the Crimean War began in 1853, forcing them to leave. After traveling throughout the Mediterranean and a two-month stay in Rome, Marsh returned to the U.S. in 1854.[10]

In debt and without a job, Marsh began to focus on lecturing, traveling around the country to give talks on an array of subjects. He spoke on importing camels, but disregarded the idea after a trip west revealed it impractical. He was hired as Vermont's Fish Commissioner in 1857 to survey the chances of replenishing the fish populations in state waters. This job was another major influence in the development of his ideas on human impacts on the environment. Marsh was aware of the intertwined connection between plants and animals and their environment, and how human actions such as damming could affect these relations in a negative way. Although the term "ecology" had not been coined yet, he was clearly one of the early ecological thinkers in the United States.[11]

Marsh's interest in human impact on ecology continued, but he wrote on many different topics such as architecture and railroads. He then taught English at

[10] Lowenthal, *George Perkins Marsh*, 106-180.
[11] Lowenthal, *George Perkins Marsh*, 181-196.

Columbia University, hired for his extensive and renowned knowledge in philology. Marsh was drawn into diplomacy once again, appointed Minister to Italy under Lincoln in 1861. He was always enamored with Italian culture and its classical antecedents and excitedly accepted the position. During this time the Civil War was looming over the country, and Marsh left for Turin days after the fall of Fort Sumter defeated any chance of negotiation. He remained in Italy as the Minister for twenty-one years, longer than any other previous to him. The Civil War dominated the beginning of his diplomacy, as Marsh was responsible for corralling support in Europe for the Union. By 1862, Marsh and his family had moved to Genoa during the weekdays to escape the bustle and expenses of Turin. He used this solitude to write *Man and Nature*. Marsh had the chance to go home after Rome unified with Italy in 1870, but he declined. He moved to Rome and continued to work in diplomacy there, where he flourished yet again both socially and intellectually. Old age encroached upon his diplomacy and social life in Rome, forcing Marsh and Caroline to retire to Florence, where they had family. Marsh died less than two months later at the age of 81. Illustrating his extensive knowledge of the natural world and his ability to disperse it to eager apprentices, Marsh's body was carried down the mountains of Italy by his forestry students.[12]

Reception and Impact

Marsh's insights into the negative affects that overexploitation and human disturbances could have on nature were generally ahead of his time. Most of his contemporaries held the notion that the earth and its resources were abundant, and

[12] Lowenthal, *George Perkins Marsh*, 220-266.

therefore did not consider the negative impact that humans could have on it. *Man and Nature* was one of the first and most extensive books aimed at creating an ecological awareness of human-induced degradation of the environment. Illustrative of the novelty of the subject of *Man and Nature*, Marsh had difficulty publishing the book. His English publisher thought the book lacked purpose and would be difficult for the public to grasp, and his New York publisher redacted some of his inflammatory opinions from the text. After multiple publishing delays, it was finally published in 1864. The initial sales and reception of the book were disappointing. Within a decade of publication, however, it became an international classic. Supporters and critics alike praised its critical observations and compassion for nature. *The Earth as Modified by Human Action*, the revised title of the second edition of *Man and Nature*, was printed at a time in America when people could no longer ignore the obvious decline of the environment, specifically the forests. Scholars turned to Marsh's work for its insights into the anticipated decline of nature and its productivity. Marsh's biographer Lowenthal ranks *Man and Nature* as one of the two groundbreaking texts in the ecological field of science in the 19th, the other being Darwin's *On the Origin of Species* and *Man and Nature*. Wallace Stegner, a twentieth-century author and environmentalist claimed that Marsh's *Man and Nature* was, '"The rudest kick in the face that American initiative, optimism and carelessness had yet received."'[13] *Man and Nature* challenged the views of Americans, and influenced many to take action to counter the negative human influence. Marsh's work influenced some of the most important figures in the

[13] Wallace Stegner, "It All Began with Conservation," *Smithsonian* (April 1990) as cited by Lowenthal, *George Perkins Marsh*, 303.

conservation movement in the 19th century, including Franklin B. Hough, Gifford Pinchot, and Theodore Roosevelt. According to Lowenthal, "every leading forestry figure was inspired by the book and sought Marsh's advice."[14] They praised Marsh's progressive thinking and attributed him as the pioneer of forest protection and a growing environmental awareness.

Man and Nature fell into relative obscurity following its initial popularity, but was recognized again with the environmental crises in the 1930s, including the Dust Bowl, soil erosion, and major flooding events. Marsh was celebrated once again for his contributions to environmental awareness. A park in his name was created in Vermont and his hometown Woodstock, Vermont was designated as a National Historic Landmark. However, A comprehensive and complete understanding of the intertwined relationships between all of the topics that Marsh expounded upon was not appreciated until the 1960s.[15] Despite the revival of Marsh and an increase understanding of the damage that human had on the environment, conservation only reached a limited audience; most believed that man's impact on nature was relatively small because of the perception of abundance of natural resources. Beginning in the 1950s, new technological threats were causing an increased environmental consciousness generally, but they were a different set of concerns than those raised by Marsh. The threats posed by technology were very different than those encountered by Marsh, such as radiation and toxicity, and their effects were seen much sooner. In large part because of this change in threats, Marsh is not cited in modern texts nearly as much as he used to be. As Lowenthal states,

[14] Lowenthal, *George Perkins Marsh*, 303.
[15] Lowenthal, *George Perkins Marsh*, 309.

"Environmental texts pay almost obligatory homage to *Man and Nature*, then mention it no more."[16]

Modern environmental discourse generally disregards Marsh, disregarding its "resource-use philosophy" as materialism. It also criticizes his notion of nature being made for man, rather than man for nature. Lowenthal observes the modern embrace of thinkers such as Henry David Thoreau and John Muir and their focus on aesthetics through a "hands-off-nature ethos."[17] He also points out this divide between scholars such as Marsh and Thoreau being a modern construction, which would have not been recognized by their contemporaries. Although Thoreau died before he read Marsh's works, Muir admired them. As we will see later, Muir used *Man and Nature* to protect the soils and forests as watershed protection in Yosemite.[18]

Modern environmental scholars disagree on Marsh, his influence, and his current usefulness. They do agree on the persistence of the problems today that Marsh addressed in *Man and Nature*, including deforestation, soil erosion, and need for watershed protection. Along with the issues focused on by Marsh, there are currently a host of other problems that appear even more obvious and dire, resulting in a belittlement of the long-term issues. Modern environmental authors generally reduce Marsh and his influence into a sentence or two and move on, an "obligatory homage" as Lowenthal suggests. Although often discussing issues that

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[16] Lowenthal, *George Perkins Marsh*, 415.
[17] Lowenthal, *George Perkins Marsh*, 416.
[18] A watershed is an area that has snowfall, rain, streams, etc. flowing into a larger body of water. Watersheds can be damaged by sedimentation, soil erosion, and flooding events. Watershed protection generally involves designating land use in surrounding areas to prevent damage.

Marsh first observed, current environmental writers disregard him and his past inquires as a source for reference. Modern environmentalists can benefit from examining Marsh, his ideas, and his observations about his contemporary landscape to provide hindsight as well as a foundation for future reform.

Lowenthal's biography is currently the most ambitious and republished work on Marsh's life and works. Another biography on Marsh was published in 1982, celebrating his advanced contributions to environmentalism in the U.S. Works have been published that collaborate Marsh's writing into one text, such as *So Great a Vision: The Conservation Writings of George Perkins Marsh*, edited by Trombulak, which focuses on the development of his conservation thinking.[19] Because of his novelty and importance in the field of conservation, virtually all works on Marsh focus mainly on his ideas about the environment and the impact that they had on others.

[19] Stephen C. Trombulak (ed.), *So Great A Vision: The Conservation Writings of George Perkins Marsh* (Hanover: University Press of New England, 2001).

Chapter 2: Classics in *Man and Nature*

Marsh uses multiple Latin passages and authors in *Man and Nature* to support his argument connecting the misuse of the land in antiquity and the fall of their civilizations. He often selectively uses authors, as well as Latin passages, to make his argument stronger. This selective use raises the question as to why these few authors and passages. The answer may be found in the context of Classical Studies contemporary to Marsh, or his personal preference for certain authors and styles. Marsh's selective use raises the question of misuse, a concept that reception studies discuss in terms of Classics.

Classical Education in Context

Classical language and culture was a part of the average middle-upper class American's education during Marsh's lifetime. Classics was generally taught beginning in grammar school and academies, and continued in college. Classical conditioning often occurred in the home and was encouraged by political leaders.[1] Marsh was exposed to Latin and Greek at a particularly young age, when his brother taught him the languages at around five years of age. By the time that Marsh was at Phillips Academy, where Classical languages dominated the curriculum, he had already mastered the languages.[2] The curriculum at similar schools included, but was not limited to, "Phaedrus, Cornelius Nepos, Caesar, Sallust, Ovid's

[1] Carl Richard, *The Golden Age of the Classics in America: Greece, Rome, and the Antebellum United States* (Harvard University Press: Cambridge, 2009), 1.
[2] Lowenthal, *George Perkins Marsh*, 21.

Metamorphoses, Cicero's orations, Tacitus' *Agricola* and *Germania*, Horace's *Odes* and *Epodes*, the Greek Gospels, and Homer's *Iliad*."[3]

The foundations of Classical Studies were established during a student's grammar and academy education, but were advanced during college and university years. One of the few requirements to be accepted into college was a familiarity of many Classical works, the ability to write in Latin prose and to read Greek. Colleges and universities were beginning to incorporate new subjects into their curriculum in the 19th century, such as geography and chemistry, but focus remained largely on Classics and theology. Marsh attended Dartmouth, where Classics and mathematics were the main curriculum for the first three years. Marsh's classmate remembered, "he read the Greek poets and historians with as much ease as an ordinary man would read a newspaper."[4] Marsh had already mastered the Classical languages and had moved on to teaching himself the Romance languages, which were not offered at the college.

For most Americans, classics was used, "as a favored source of symbols, knowledge, and ideas,"[5] and can be considered as a source of influence for Marsh, as his extensive background in classics is evident. According to Richards, a revival of Hellenism occurred in the United States, during the westward expansion in the early-mid 1800s. During this time Greece was struggling for independence from the Ottoman Empire, renewing an emphasis on Classical education, with a greater focus

[3] Richard, *The Golden Age of the Classics in America*, 2.
[4] Lowenthal, *George Perkins Marsh*, 24.
[5] Richard, *The Golden Age of the Classics in America*, x.

on Greek language and culture, which had historically been secondary to Latin.[6] Latin and Roman history, however, remained of interest to Americans. Classics was entrenched into American society during the antebellum period, its influence ranging from the legal system to architecture. When industrialism occurred in the United States in the early 19th century, the influence of classics on American society was evident in the rise of pastoralism, which Richards defines as "a romantic backlash against excessive commercialism"[7] and industrialization led to a revitalization of the classical authors famous for their pastoral prose, including Hesiod, Virgil and Horace.[8] Contemporary to this movement, Thomas Cole painted his famous series titled "The Course of Empire" which traces the rise and fall of civilization from pastoral landscapes to urbanized chaos and destruction, with distinct illusions to classical civilizations.[9] This series of paintings illustrates the views that many held during this time, including Marsh, about capitalism and urbanization and glorification of rural, natural landscapes. Given his sensibilities and early concerns about environmental degradation, it is probable that Marsh was to some extent influenced by this renewal of classical pastoralism. Marsh was continually influenced by his classical upbringing throughout his life, as was typical of most middle to upper class Americans.

Classical References in *Man and Nature*

The influence of the classical world on Marsh in *Man and Nature* is evident through his first and secondhand experience with the Mediterranean environment.

[6] Richard, *The Golden Age of the Classics in America*, 11.
[7] Richard, *The Golden Age of the Classics in America*, 84.
[8] Richard, *The Golden Age of the Classics in America,* 83-86.
[9] "About the Series: The Course of Empire", Explore Thomas Cole.

It is clear that he acquired a vast amount of knowledge of the environment in antiquity through his classical education and avid reading of classical authors. This knowledge was supplemented by his direct experience while traveling in the Mediterranean and observing firsthand aspects of what the authors addressed. The only ancient author that Marsh directly cites in *Man and Nature* is Pliny the Elder, whom he mentions twice. However, there are multiple passages in the book where Marsh uses specific evidence from antiquity to support a claim, and presumably got this evidence from an ancient author that he had read.

The first reference to Pliny occurs in his third chapter on woods in the section "Influence of the Forest on Springs." Marsh begins this chapter by discussing the forested state that the earth must have been before it was inhabited by men and the influence the forest and trees have on ecosystems through both biotic and abiotic processes. The section on springs begins by Marsh discussing the role of forests in containing soil moisture and natural springs. He states that when areas are deforested, this ecosystem service diminishes and the water supply decreases in "number and in volume."[10] Marsh then references a quote from Pliny the Elder's *Natural History* that another author mentions. The passage shows Pliny's observation of similar phenomena that Marsh noticed in the United States. In the passage, Pliny discusses the emergence of springs as a result of felling, because the trees no longer absorb the water. In his footnote, Marsh includes a portion of the Latin from the passage that he is paraphrasing:

> *Nascuntur fontes, decisis plerumque silvis, quos arborum alimenta consumebant, sicut in Haemo, obsidente Gallos Cassandro, quum valli gratia*

[10] Marsh, *Man and Nature,* 197.

> *cecidissent. Plerumque vero damnosi torrents corrivantur, detracta collibus silva continere nimbus ac digerere consueta.*
>
> Springs arise often when woods have been cut down, being used up before as sustenance for the trees; this happened when Cassander was besieging the Gauls after the woods on Mount Haemus had been felled by them to make a rampart. Often indeed devastating torrents unite when from hills has been cut away the woods that used to hold the rains and absorb them.[11]

After his summary, Marsh is generalizing and removing cultural specificity that the Latin passage includes by completely excluding them. The following line of Latin in *Natural History* is relevant to the passage included, yet Marsh excludes it. There are historical and cultural specifics in the Latin passage, including the place Mount Haemus, the Gauls, and the person, Cassander. Marsh is generalizing this entire passage to relate the Romans to the American states, jumping from Pliny to America to atmospheric humidity, largely ignoring what the actual Latin passage is saying. Marsh also adds information that was not taken from the Latin, discussing planting trees and marshy ground that is nowhere present in the Pliny passage that he includes. Marsh's passage states:

> Foissac, indeed, quotes from the elder Pliny (Nat. Hist. xxxi, c.30) a passage affirming that the felling of the woods gives rise to springs which did not exist before because the water of the soil was absorbed by the trees; and the same meteorologist declares, as I observed in treating the effect of the forest on atmospheric humidity, that the planting of trees tends to drain marshy ground, because the roots absorb more water than falls from the air…In the American States, it is always observed that clearing the round not only causes running springs to disappear, but dries up the stagnant pools and the spongy soils of the low ground…As the forest have been from time to time removed, and the face of the earth laid open to the air and sun, the moisture has been evaporated…[12]

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[11] Pliny, *Naturalis Historia* xxxi, 30. H. Rackham (ed.). Loeb Classical Library. Cambridge, MA: Harvard University Press, 1934.
[12] Marsh, *Man and Nature*, 198.

In Marsh's footnote, he cites a similar situation of emerging springs from a passage in Seneca, also including the Latin, but limiting it to five words.[13] The entire passage from Seneca seems relevant when examining the Latin, yet Marsh excludes it. This raises the question of how Marsh is using the Latin, and why he is generalizing the passages and removing the cultural specificity included in them. It seems likely that he is using antiquity to legitimize his argument and strengthening his connection between the Romans and the American states by including the useful sections of the Latin and excluding the parts that do not add to his argument. After his summarizing of this passage, Marsh goes on to question the validity of it, stating that it "rests on very doubtful authority,"[14] mainly because of the second half of the passage relating to elevation. Marsh speculates in the Appendix about the relationship of elevation and precipitation.[15]

Marsh's next reference to Pliny also occurs in the third chapter within the section "General Consequences of the Destruction of the Forest." This section begins by discussing the multitude of effects that vanishing forests have on the environment, with a specific focus on soil. Marsh states, "But the vengeance of nature for the violation of her harmonies, though slow, is sure, and the gradual deterioration of soil and climate in such exceptional regions is as certain to result from the destruction of the woods as is any natural effect to follow its cause."[16] Following this quote, Marsh discusses Pliny's observation that deforesting hillsides leads to harmful torrents, because the tree roots no longer are available to absorb

[13] See Marsh, *Man and Nature*, 198.
[14] Marsh, *Man and Nature*, 198.
[15] Marsh, *Man and Nature*, 556.
[16] Marsh, *Man and Nature*, 216.

the water**.** Although Pliny was inaccurate in his deduction that the trees directly absorbed the water rather than the soil, Marsh praised Pliny's linking deforestation to torrents. Marsh criticized Pliny, again, on his simplified understanding of natural processes and accused him of his typical wrong philosophy.[17] Marsh uses a quote from Pliny for this section, but does not cite where it came from, so it can be assumed that he translated it himself. Marsh ends this section by observing that the harm of deforestation and clear-cutting was noticed as early as authors like Pliny, but was forgotten soon after, leading to vast deforestation especially in Europe. Only recently, Marsh observed, had a select few European countries observed the destruction that excessive felling had on the environment.[18]

Marsh uses other examples of alteration of physical geography in antiquity in *Man and Nature* that indicate his familiarity with classical texts. Although he does not cite specific texts, his relatively detailed statements about antiquity suggest they derive from classical sources. An example of this indirect use of classical texts occurs in his fourth chapter that focused on waters. Marsh asserts that western coastal Tuscany, or Etruria, was a healthy, productive land until Roman conquest. Marsh states that, "This was a natural consequence of the neglect or wanton destruction of the public improvements, and especially the hydraulic works in which the Etruscans were so skillful, and of the felling of the upland forests, to satisfy the demand for wood at Rome for domestic, industrial, and military purposes."[19] Marsh goes on to say that, after the fall of Rome, "the barbarians"

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[17] Marsh, *Man and Nature*, 216.
[18] Marsh, *Man and Nature*, 216-7.
[19] Marsh, *Man and Nature*, 425.

contributed to the decrease in productiveness of the land through exploitative practices. By discussing public works of the Etruscans and the specific use of wood in Rome, Marsh indicates a clear knowledge of the classical world, one that he presumably acquired through reading texts.

Another example of Marsh's use of his precise knowledge of physical geography in antiquity appears in his final chapter of *Man and Nature* titled "Projected or Possible Geographical Changes by Man." He discusses the subterranean waters in Greece, which in antiquity were used for draining or irrigation. The subterranean waters drained into limestone caves known as *catavothra*, which entrances then were closed or open as needed in antiquity.[20] The specific facts and terminology that Marsh uses in the description of these caves shows his extensive knowledge of the classical world. Similarly, Marsh references specific authors who discuss how human modification can alter the environment and the severity of earthquakes. He states that, "Aristotle, Pliny the elder, and Seneca believed that not only natural ravines and caves, but quarries, wells, and other human excavations, which break the continuity of the terrestrial strata and facilitate the escape of elastic vapors, have a sensible influence in diminishing the violence and preventing the propagation of earth waves."[21]

Marsh cites Pliny and Seneca both more than once, and Aristotle once. Because of Marsh's classical background, he presumably read these texts himself and gathered information and facts directly from them. Marsh also evokes facts from antiquity multiple times in *Man and Nature* without providing a source for

[20] Marsh, *Man and Nature*, 536.
[21] Marsh, *Man and Nature*, 542.

them. This could simply be a result of his encyclopedic expertise on the ancient world. Who were these ancient authors and what did they write about?

A Brief Context of the Mediterranean

The Mediterranean Basin was the heart of the Greek and Roman Empires, and determined the ecological conditions of the lands. The Mediterranean's climate made it beneficial to human settlement because of its hot, dry summer and cold, wet winter and its advantageous landscape. Human development altered the ecological web that had previously existed. Domestication of plants and animals during the Neolithic Age changed the relationship between humans and the environment. Despite a growing hierarchy between humans and nature, there continued to be sacredness in the natural world in antiquity, as evident in their religion. Through the worship of gods associated with natural elements and phenomena, people in antiquity recognized their continued dependence on the environment. Looking for answers about the world around them, ancient thinkers developed an early form of ecological science.[22]

Agricultural Works

Farming was a part of virtually every individual's life in antiquity. Men would own land that was cultivated with their families. Peasants were required to farm for sustenance, but taxation often led them to become indebted tenants of wealthy landowners. Wealthy citizens would usually own large farms that they managed. Many authors in antiquity wrote agricultural treatises to discuss common practices and share land-use advice. Their rudimentary understanding of ecology

[22] Hughes, *Environmental Problems,* 1-60.

can be determined through these texts, as they discuss the importance of such practices as plowing and fertilizing.

Authors from Antiquity that Marsh Included

Gaius Plinius Secundus lived from 23 CE to 79 CE, beginning his career in the military, then moving into law and oration. Pliny is renowned for his massive work *Naturalis Historia (Natural History)*, a compilation of thirty-seven books that aspired to document all the knowledge in the ancient world. A rudimentary encyclopedia, *Naturalis Historia* discusses everything from astronomy to painting. Today, its practicality and straightforwardness makes it appealing to some, however also detracts from others. According to Classics scholar Gian Biagio Conte,

> [A]s Pliny has lost his practical value as a reference handbook in the modern period, he has gained in historical importance for the information he transmits concerning ancient art, science, folklore, religion, and material culture. It is precisely Pliny's intellectual defects—his bland indifference to theoretical rigor, his refusal to engage in systematic analysis and selection—that make him so precious for modern scholars interested in the ancient world. Unlike scholars who had greater intelligence, more self-confidence, or simply more time at their disposal, he preserves everything and passes it on to us.[23]

A contemporary of Pliny, Lucius Annaeus Seneca lived from 4 BC to 65 CE. Born in Spain, Seneca was educated in Rome in schools of rhetoric. He went into politics and was successful, until his fame made him envied by both emperors Caligula and Claudius, leading to his eventual exile. Seneca was freed from exile to tutor the future emperor Nero. Seneca became Nero's political advisor when he came into power, influencing the period that was known for its "principles of balance and

[23] Gian Biagio Conte, *Latin Literature: A History* (Baltimore: John Hopkins University Press, 1999), 503.

conciliation."[24] This stability was soon disrupted, however, when Nero's reign began its notorious downfall, pushing Seneca out of the political sphere and into seclusion. Seneca was sentenced to death for supposed involvement in an assassination conspiracy, and committed suicide in 65 CE.[25]

Most of Seneca's works that survived are his philosophical texts. *Dialogi* (Dialogues) is a compilation of his works into twelve books after his death. Stoic philosophy dominates these works, and virtually all of Seneca's writings. Seneca's existing scientific work, *Naturalium Quaestionum Libri VII*, is similarly influenced by his Stoic philosophy. According to Conte, "It deals with various atmospheric and celestial phenomena, from storms to earthquakes to comets. It is the result of an immense labor of compilation, probably extending over many years, from varied, principally Stoic sources (such as Posidonius). It appears to represent the physical underpinnings of Seneca's philosophical system, but in fact there is neither integration nor organic connection between the physical investigation and the moral inquiry."[26]

Aristotle is the final classical author that Marsh briefly includes in his work. Writing previously to the other two authors, Aristotle lived from 384 BCE to 322 BCE. A student at Plato's Academy, Aristotle excelled as a thinker and researcher in an extensive range of subjects. Aristotle left Athens after the death of Plato and traveled around the empire. During this period Aristotle most likely developed his

[24] Conte, *Latin Literature*, 408.
[25] Conte, *Latin Literature*, 408-9.
[26] Conte, *Latin Literature*, 412.

strong interest in biology.[27] As his reputation as a philosopher continued to grow, Aristotle was hired to tutor Alexander the Great, then just a teen. Once Alexander was in power, Aristotle returned to Athens and began his own school of philosophy, the Lyceum. Aristotle significantly contributed to the developing style, theory and thought of philosophy.[28]

Authors from Antiquity that Marsh Excluded

Cato's *De Agricultura* is one of the two major agricultural works from antiquity. Marcus Porcius Cato lived from 234 BC to 149 BC as a Roman statesman, orator, and prose writer.[29] Born into an upper-middle class farming family, Cato went into military service and then excelled in politics. Today, Cato is renowned for his prose. Cato's *De Agricultura*, or "On Agriculture" is the earliest Latin prose piece available today, describing in depth how to best manage a farm. He gives advice on a variety of topics including the business aspect of it, management, equipment, techniques, and even recipes. Cato provides a picture of the daily undertakings of a Roman farmer. His work provides a primary source of the understanding that farmers have about the natural world, as well as the many inaccurate and destructive farming methods that they practiced, such as overuse and subsequent soil exhaustion. Despite the harmful practices, it also shows how conscious farmers were of many ecological phenomena.

Marcus Terentius Varro is another major Roman author who wrote a treatise on agriculture. Living from 116 B.C. to 27 B.C., Varro wrote extensively in various

[27] E. J. Kenney and W.V. Clausen, *The Cambridge History of Classical Literature, Volume 2: Latin Literature* (Cambridge University Press, 1982), 528.
[28] Kenney and Clausen, *The Cambridge History of Classical Literature*, 527.
[29] Conte, *Latin Literature*, 85.

fields.[30] His *De Re Rustica* consists of three books dedicated to different people according to different farming practices. One section deals with general farm management, the next with husbandry, and the final with all other animals besides cattle. The text consists of dialogues between various distinguished Roman citizens at an agricultural festival in Rome. Practices such as manuring and seasonal planting, along with many others are discussed in the dialogue. Like Marsh, Varro understood that both environmental factors and human influence played a role in how successful the land was. Within the dialogue the speaker Stolo proposes that, "Granting that healthfulness, being a produce of climate and soil, is not in our power but in that of nature, still it depends greatly on us, because we can, by care, lessen the evil effects."[31] Scholars debate how to interpret this handbook, some arguing it is the farming guide that it claims to be, and others arguing that it is meant to be a joke. Conte suggests that, "the true purpose of the work is to present a satisfying picture of himself to the country gentleman"[32] and "thus, not intended (except superficially) for the practical instruction of the steward, but written rather to foster and gratify the ideology of the rich landowner."[33]

Columella, another major Roman author who wrote yet another work called *De Re Rustica*, or "On Agriculture" was not cited in Marsh's *Man and Nature*. A technical treaty on all things agricultural, Columella's work was the most extensive and renowned on the subject. Lucius Junius Moderatus Columella, a contemporary

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[30] Conte, *Latin Literature,* 218.
[31] Hooper & Ash, *On Agriculture* (Cambridge, MA: Harvard University Press, 1934), 187.
[32] Conte, *Latin Literature,* 218.
[33] Conte, *Latin Literature,* 219.

of Seneca, was born in Spain and eventually resided in Rome. Not much is known about his personal life, other than his devotion to writing his extensive work on agriculture. Similar to the works of Cato and Varro, Columella discusses everything from cultivation of plants to the duties of the farm worker. He brings attention to the misuse of the land, mostly through deforestation and soil erosion, and disinterest in farming by owners, calling for a rejuvenation of the association of nobility and farming. He idealizes the old Roman landowner, who spent their time equally between farming and politics. Similar to Cato and Varro, Columella's work ultimately is aimed at, and praises, the wealthy landowner with a large estate.[34]

A Comparison of Authors

Marsh's inclusion of certain authors and exclusion of others could simply be who was popular at the time that he was reading. Rome and its culture dominated Classical studies in the 1800s, although Greek came into fashion occasionally. Americans studied Roman civil law and incorporated it into their own lawmaking. They were able to visit Italy and imagine its history firsthand. Neoclassical imagery and ideas were everywhere in America during Marsh's era. According to Richards, "…the sights and sounds of even small frontier towns—the names, the buildings, the art, and the speeches—all served to reinforce the popular notion that the United States was the chief heir to the ideals of Greece and Rome, a classical republic reborn."[35] Thoreau read Cato, Varro, and Columella to compare ancient farming to modern, and found the practices inherently similar due to the fact that Romans gave

[34] Conte, *Latin Literature,* 389-90.
[35] Richards, *The Golden Age of the Classics in America,* 40.

agriculture to the British, and the British to Americans.[36] Other authors contemporary to Marsh also looked to these authors for comparisons to their modern agriculture, such as George Fitzhugh, who claimed that the development of science and industrial agriculture, or "excessive rationalism," by Cato and others had led agriculture to decline similar to how it was in the 19th century. [37]

The major authors on agriculture were being read and used as references during Marsh's lifetime, but Marsh did not openly include them in his references. Perhaps he did not think they were useful since they were strictly on agriculture, despite the fact that the agricultural practices led to many of the problems that he speaks about such as soil erosion and deforestation. Perhaps it was strictly a stylistic choice. Cato, Varro and Columella's works on agriculture were practical manuals, and read as such. Their information is clearly presented in a factual way, and they generally avoid philosophical speculation. Pliny and Seneca's works are more engaging and rooted in philosophical theory. Pliny's *Naturalis Historia* is an early form of an encyclopedia, but he seems to include interesting, somewhat anecdotal information on a massive range of subjects. Seneca's *Naturalium Quaestionum Libri VII* similarly has scientific facts mixed in with moral and philosophical narratives. Overall, the authors who wrote strictly on agricultural works were longer and more factual about procedures, whereas the authors who wrote on many subjects had shorter sections on the natural world, which combine scientific fact with a mixture of philosophizing.

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[36] Richards, *The Golden Age of the Classics in America,* 102-3.
[37] Richards, *The Golden Age of the Classics in America,* 103.

It is worth considering the lives of the ancient authors in context and how they may have played a role in the inclusion or exclusion from Marsh's references. Social, political, and economic conditions at the time each of these authors wrote create important differences, but also significant similarities. Both Cato and Varro came from similar economic backgrounds, and therefore had similar social and political spheres. Cato and Varro highlight the respectability of a career in agriculture early on in both of their works. Cato claims, "It is from the farming class that the bravest men and the sturdiest soldiers come, their calling is most highly respected, their livelihood is most assured and is looked on with the least hostility."[38] He declares that their ancestors' greatest commendation was to be called a good farmer, and there used to be laws that embodied this view on farmers. Cato's regard for the agricultural community as part of essential Roman virtues is evident in many of his statements. This view on agriculture and its part in virtue was most likely instilled in him from an early age as he grew up working on his family farm, learning personally the basic principles of agriculture. Varro similarly speaks highly of a profession in agriculture, saying, "And not only is the tilling of the fields more ancient—it is more noble."[39] Varro held estates in Apulia and Reate where he had large herds of sheep and horses, and was particularly interested in husbandry throughout his life.[40] Although not much is known about Columella's past, his work shows many of the similar ideas as Cato and Varro's. All three

[38] Hooper & Ash, *On Agriculture*, 3.
[39] Hooper & Ash, *On Agriculture,* 425.
[40] Mark Lelle and Michael Gold, "Agroforestry Systems for Temperate Climates: Lessons from Roman Italy." *Forest & Conservation History* 38.3 (1994): 118-26.

authors wrote extensive treatises on agriculture that glorified and were aimed at the wealthy landowner.

The authors that Marsh references in *Man and Nature* did not write explicit works on agriculture, which would include crucial information for comparison of concepts that Marsh discusses, such as soil erosion and deforestation. The authors that Marsh did include have relevant information about their notions of the natural world layered throughout their works. Pliny, Seneca, and Aristotle did not primarily concern themselves with agriculture, but all shared a common interest in the natural world, arguably more so than was common during their times. Their shared interest in biological processes led them to speculate, in the case of Aristotle and Seneca, and compile, in the case of Pliny, information about the natural world. Pliny and Seneca came from similar economic and political spheres as the earlier authors. Educated from a young age, they eventually made their way into politics and studied law and oration, as a typical wealthy Roman male would do. Pliny and his family owned multiple estates, and from what is known of Seneca, he retreated to an estate towards the end of his life.[41] It can be assumed that they were exposed to farming from a young age. After the two authors left their hometowns, however, the majority of their lives were spent in Rome, where farming was less observed on a daily basis. Although exposed to farming, it seemed to have less of an impact on Pliny and Seneca's life than it did on Cato, Varro, and Columella's.

The periods in Rome's history and the leaders that defined them may have played a role in Marsh's inclusion and exclusion of certain authors. In the fourth and

[41] Conte, *Latin Literature*.

early third centuries, the Romans began to establish their dominance in the Mediterranean. The political system that would make up the Roman Republic was developed and the Romans began expanding their influence beyond Italy. The government of the Roman Republic was made up of officials, the senate, and an assembly of citizens, all of which had time limits to how long they were held. The assembly of citizens chose new officials and approved most important public actions. Members of the Republican government were almost always wealthy citizens from elite families. By the early 3rd century, the Roman Republic was led by the *nobiles*, or nobles, and continued to be through the 1st century.[42]

After victory in two Punic Wars, Rome had expanded to include much of the Mediterranean. Provinces were created to deal with this expanding territory, increasingly far from Rome. Despite this, the government was not well equipped to establish and maintain their power over the new territories or exploit their resources. As Rome continued to expand, this would eventually contribute to the fall of the Republic. Temporarily, however, the wealthy elite became richer and more powerful, cities expanded and the economy boomed. Later in the second century, disruption in the governing body came from a rise in politicians' use of public support to win elections over support from fellow elite senators. Conflict and bloodshed over power continued and escalated. Campaigns in North Africa, Eastern Europe, and Asia dominated the late Republic, as civil unrest grew simultaneously, marked by slave uprisings and two major civil wars. Sulla and his supporters forced their way into power through military action against fellow citizens, in many ways

[42] Mary T. Boatwright, Daniel J. Gargola and Richard J.A. Talbert. *A Brief History of the Romans* (Oxford University Press: Oxford and New York, 2006), 32-54.

beginning the fall of the Republic. Soldiers were increasingly rewarded with monetary prizes, and loyalty could be bought. Julius Caesar ascended to power after many successful military campaigns, marching on Rome in 46 BCE and declaring himself dictator for life. Caesar was assassinated in 44 BCE, but the Roman Republic had come to its end as the Empire rose.[43]

After Caesar's death, civil war broke out around the Empire. Caesar's nephew and adopted son Gaius Octavius formed alliances and sought revenge on Caesar's assassins. Eventually taking on the name Augustus after multiple victories, he became the leader of the developing Empire. Augustus downsized the number of senators, keeping only the wealthiest elites, and named himself *princeps senatus* (chief man of the senate), placing his authority above all others. The Roman Empire entered a period known as the Pax Romana, a time of comparative peace after the violent civil wars. Augustus died in 14 CE and his adopted son Tiberius assumed the role as Emperor until 37 CE. Generally removed from Rome and its people, Tiberius focused on the military and controlling Rome's territories. Tiberius was succeeded by his grandnephew Caligula, a suspicious and harsh ruler afflicted by seizures from a young age. In 41 CE, Caligula's uncle Claudius became the next Emperor. Afflicted with an illness from a young age, Claudius became a scholar. He treated his political role seriously and worked closely with the senate, although they resented him. He married his fourth wife and niece Agrippina the Younger, who secured her son Nero as heir to the Empire. In 54 CE, following the death of Claudius, Nero became Emperor as a teenager. He had his mother killed and his closest advisors exiled. He

[43] Boatwritght, Gargola and Talbert, *A Brief History of the Romans,* 78–166.

avoided military involvement and gained many enemies in the senate. Nero committed suicide in 68 CE, ending the Julio-Claudian dynasty.[44]

With no heir to the emperor, civil war broke out after Nero's death. Vespasian finally assumed power after competition with three other contenders. Under Vespasian, the senate became more involved in the decision making than with previous emperors. He brought relative stability to the Empire through economic improvements and donations to public improvements. His son Titus was similarly a successful leader, helping during the eruption of Vesuvius and major fires in Rome. In 81 CE, Titus died suddenly and his brother Domitian was Emperor until his assassination in 96 CE. The 180 years following his reign was known for its peace and prosperity.[45]

The authors that Marsh references were strictly from the early Imperial Roman period, excluding the authors then from the Roman Republic. Both governments shared a concentration of power in the wealthy elites of society, although the Republic had more of a façade of participation. Military campaigns dominated the government's efforts in both the Republic and the Empire. The authors that Marsh cites were living in a period of transition from Republic to Empire. Following the forced peace by Augustus, emperors were all "consciously magnanimous"[46] to different degrees. They funded public buildings, distributed cheap food and put on extravagant entertainment for the people. Despite this, the early emperors, including Tiberius, Caligula, Claudius, and Nero were volatile and

[44] Boatwritght, Gargola and Talbert, *A Brief History of the Romans,* 167-210.
[45] Boatwritght, Gargola and Talbert, *A Brief History of the Romans,* 211-227.
[46] Boatwritght, Gargola and Talbert, *A Brief History of the Romans,* 214.

generally disliked. Pliny and Seneca lived, studied and wrote under these emperors. Seneca committed suicide as a result of his banishment by Nero. Pliny lived to see the emperors Vespasian and Titus, dedicating his massive work to Titus as a result of their close friendship. It is important to acknowledge that Pliny and Seneca were among the wealthy elites who were in close proximity to these emperors. Although they may not have supported the emperors, they would have been involved, or at least aware, of their affairs.

Perhaps the authors Pliny and Seneca were able to devote more time to scholarly matters under the Empire than Cato and Varro were under the Republic. Cato entered into the military at a young age and moved up the ranks quickly. He held many positions in the Republic, becoming aedile, praetor then consul in 159 BCE. Varro had a similar career, however he never reached consul. These positions would consume much of these authors' time and devotion. When the Republic became the Empire, many of these positions were simply maintained for traditions sake, but did not have as much responsibility. Both Pliny and Seneca were schooled in philosophy from a young age and groomed for politics, and did become involved as advisors and officers. They seemed to have more freedom to pursue writing than the early authors such as Cato and Varro, perhaps because of the status of the Roman government and the burden that their positions held.

It is interesting to speculate the reasoning behind the choice of classical authors that Marsh includes in *Man and Nature*. Marsh does not reference the obvious choices of authors who wrote extensively on agriculture, but rather chooses the authors who more subtly and less comprehensively write on the natural world

and its processes. This could be a result of the time he was living, even though his contemporaries do cite the more obvious authors. It may be simply personal preference or an inclination to certain authors based on their content and styles. Examining the period of the classical authors who wrote on the natural world, their socio-economic positions, and the leaders that they were writing under may shed light upon the motivation behind Marsh's choice of authors. For various reasons, Marsh may have chosen authors from the Imperial period of Rome over the Republic. Many of these reasons may be purely speculative, but it is worth examining the choices that Marsh makes when referencing antiquity and any motivation that may be behind them.

The Use and Misuse of Classics

As previously shown, Marsh uses antiquity to formulate a correlation between the decline of civilizations and its environmental causation. By utilizing a classical metaphor, Marsh validates his argument that overexploitation and misuse of the land can led to the collapse of civilizations, with the intimation that America was following the same path. This parallel was repeated by foresters and conservationists, and continues to be made today by scholars such as J. Donald Hughes. Antiquity is used as a metaphor in many fields outside of conservation, including literature, politics, and culture.[47] This repeated use raises the question of whether this use of the classical world had been appropriated from Marsh's era and onward. Often these references have been used to either justify or condemn an argument, and therefore have a particular motivation behind them. In addition to

[47] Katie Fleming, "The Use and Abuse of Antiquity: The Politics and Morality of Appropriation," *Classics and the Use of Reception* (Blackwell Publishing, 2006).

this, every use of antiquity is subject to the particular cultural conditions of the time that they are being used. For these reasons, it is argued that antiquity is often misused.

Reception studies has emerged as a branch of Classics that examines the modern reception of antiquity, and the manner in which it has reemerged in a number of settings. In her essay, "The Use and Abuse of Antiquity: The Politics and Morality of Appropriation," Katie Fleming discusses the difficultly of separating the two categories of reception studies: theory and history. According to Fleming, there has been a significant focus in reception studies on the appropriation and abuse of antiquity by the 20th century totalitarian regimes of Mussolini and Hitler. Fleming argues that a major focus of reception studies is on the "intellectual and moral condemnation" of these appropriations, which in some ways is justifiable because of the atrocities of this period. Fleming goes on to question the usage of the word "abuse" in these cases, asking if Hitler's repugnant actions invalidate his comments on the Pantheon. She then discusses the different ways in which the two regimes used antiquity differently, but often for the same reason. She states:

> Mussolini's turn to imperial Rome was probably as much a consequence of political precedent as of personal choice. Previous Italian statesmen and governments, particularly since the nineteenth- century reunification of Italy, had turned to ancient Rome as an appropriate model of a strong, unified state.[48]

Hitler's use of antiquity, however, was more complicated because of Greece's historic rule over Germany, yet Hitler himself was interested in many aspects of the

[48] Fleming, "The Use and Abuse of Antiquity", 132.

Greek civilization. Hitler was inspired by the monumentality of the ancient world and incorporated it into his architectural image for Germany.

Fleming argues that the separation between textual and historical approaches to reception studies have thus become more apparent and more difficult to delineate. Through her essay, Fleming is able to show, "the use of a vocabulary of "misappropriation" and "abuse," while still seen as politically and morally necessary, might nevertheless be theoretically and intellectually unnecessary. The challenge posed by fascism's use of the past, then, lies in our engagement with it: simply to dismiss, explicitly or implicitly, the appropriation of antiquity in the fascist regimes of the twentieth century as abuse is to understand neither the dynamics of that appropriation nor, ultimately, the regime that made it."[49] Although Marsh and his use of antiquity have not been dismissed in a way that these totalitarian leaders have been, it is important to consider the "dynamics" that Fleming addresses. Theses include the moral, political, intellectual and other conditions present at the time of the use of antiquity.

With the notion of misuse aside, examining the "dynamics" around Marsh's use of antiquity can reveal reasoning behind his selectivity. As will be discussed later in more detail, the Roman metaphor was used frequently in turn of the century politics to compare the greatness of America to the Roman Empire, or as a parable for America's decline. Therefore, Marsh's use of the Roman metaphor to show the dangers of ignoring environmental degradation would cohere with the political and intellectual spheres of his time. Marsh and his contemporaries most often

[49] Fleming, "The Use and Abuse of Antiquity", 137.

referenced and used the Imperial Roman period in their metaphors connecting their present to the past. Marsh most likely used the Imperial period because of its contrast to his pastoral ideal. The Imperial Roman period was known, in part, for its excess and concentration of power in a small group of lavish royalty, conditions which Marsh opposed. Through his writings, Marsh expresses his preference to the earlier Roman period, which he saw as having less oppressive government and a more pastoral lifestyle. Because of Marsh's distaste for the Imperial Roman period, it makes sense that he uses authors such as Pliny and Seneca from the early Imperial period in *Man and Nature* to support his argument that their misuse of the land led to the fall of their Empire. Marsh may have omitted the authors from the Roman Republic period, such as Cato and Varro, who are known for their bucolic writings, because they align with his philosophies more, and are not from the later period that he perceived as indulgent. Although speculative, Marsh seems to have selectively used authors from the Imperial Roman period because of their contemporary setting and conditions, which Marsh viewed as leading to the degradation of the environment and subsequent fall of the Empire.

Chapter 3: Environmental Causes for the Decline of the Roman Empire

Like many 19th century Americans, many people from antiquity believed that human impact on the environment was positive, though a few saw the negative effects that it could have. According to Hughes, the Greeks did not always see change as good, but rather determined that Earth was deteriorating under human influence.[1] Many Roman thinkers came to similar conclusions about human activity on nature. Cicero believes that nature's products are superior to products of art.[2] Pliny the Elder reproaches the overexploitation of the earth that already supplied humans with fruitful bounty, stating:

> Not content with protecting and nourishing, under the shadow of the trees, the various plants which we have already described, she would even appear to be indignant, as it were, at the thought that we should derive more succor from those productions which are further removed from the canopy of heaven, and which have only come into use in times comparatively recent. For she bids man bear in mind that it was the fruits of the trees which formed his first nourishment, and that it was these which first led him to look upwards towards the heavens: and not only this, but she reminds him, too, that even still it is quite possible for him to derive his aliment from the trees, without being indebted to grain for his subsistence.[3]

Similarly, Columella blames humans' poor farming practices for the lack of fertile land rather than a widely assumed natural decline.[4] These classical authors were part of the minority in antiquity that observed and speculated on the negative influence that humans have on nature.

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[1] Hughes, *Environmental Problems*, 64.
[2] Cicero, *De Natura Deorum*, 2.34 (87). See Hughes, *Environmental Problems*, 65.
[3] Pliny the Elder, *Naturalis Historia*, 23.1. Translation from Perseus Digital Library.
[4] Columella, *Res Rustica*, 1 (Preface 1-3). See Hughes, *Environmental Problems*, 65.

This view continued to be uncommon through the 1800's. Marsh one of the only scholars to discuss the negative impact that humans could have on the environment during this time, and influenced it in becoming the popular understanding in the following century. He deliberately chose to use the decline of the landscape during the Roman Empire as the introduction to his book. His intent was to show that empires have declined before as a result of damage to the land by humans. Marsh provides the Roman Empire as a case study for this decline drawing on his extensive knowledge of the classical world to make his point. Significantly, he begins the introduction by discussing the advantageous landscape of the Mediterranean in antiquity, with abundant supplies of necessary and material resources. The air, soils, and waters provided everything needed for a prosperous civilization. Marsh points out a sympathy that early Greek and Romans had with the natural world that also allowed a balance between human needs and overexploitation. But later, he states,

> When the glories of the landscape had been heightened by plantation, and decorative architecture and other forms of picturesque improvement, the poets of Greece and Rome were blinded by excess of light, and became, at last, almost insensible to beauties that now, even in their degraded state, enchant every eye, too often, those which a lifelong familiarity has dulled to their attractions.[5]

Next, Marsh thoroughly describes the degradation of the Mediterranean landscape in antiquity by humans in what Hughes called an "appalling and encyclopedic"

[5] Marsh, *Man and Nature*, 3.

manner.[6] Marsh gives details into how the fertile land of the Roman Empire was damaged and turned into the desolation that he saw during his time spent in the Mediterranean. He details this loss, writing:

> Vast forests have disappeared from mountain spurs and ridges; the vegetable earth accumulated beneath the trees by the decay of leaves and fallen trunks, the soil of the Alpine pastures which skirted and indented the woods, and the mould of the upland fields, are washed away; meadows, once fertilized by irrigation, are waste and unproductive, because the cisterns and reservoirs that supplied the ancient canals are broken, or the springs that fed them dried up; rivers famous in history and song have shrunk to humble brooklets; the willows that ornamented and protected the banks of the lesser watercourses are gone, and the rivulets have ceased to exist as perennial currents, because the little water that finds its way into their old channels is evaporated by the droughts of summer, or absorbed by the parched earth, before it reaches the lowlands; the beds of the brooks have widened into broad expanses of pebbles and gravel, over which, though in the hot season passed dryshod, in winter sealike torrents thunder; the entrances of navigable streams are obstructed by sandbars, and harbors, once marts of an extensive commerce, are shoaled by the deposits of the rivers at whose mouths they lie; the elevation of the beds of estuaries, and the consequently diminished velocity of the streams which flow into them, have converted thousands of leagues of shallow sea and fertile lowland into unproductive and miasmatic morasses.

In this passage Marsh discusses the destruction of virtually every aspect of the natural world, including forests, rivers, mountains and everything in between to show the extent of the damage caused by mistreatment of the land in antiquity. Some of this, Marsh states was caused by natural phenomena, but most was the result of misuse of the land by humans.

Environmental Issues in Antiquity

Marsh was correct in many of his statements regarding the degradation of the environment from antiquity and their causes. Marsh states in his *Man and*

[6] J. Donald Hughes. "Preface: Beginning with Rome," *Environment and History* 10:2, The Nature of G.P. Marsh: Tradition and Historical Judgment" special issue (May 2004): 123-5.

Nature, "The destruction of the woods, then, was man's first geographical conquest, his first violation of the harmonies of inanimate nature."[7] Deforestation was one of the most prominent environmental problems that the ancient Greeks and Romans both caused and suffered from. Deforestation in the ancient world occurred for a variety of reasons. Wood was one of the most important and widely used materials for many things such as buildings, machines, transportation, and fuel. Fuel is especially significant because wood and charcoal accounted for ninety percent of all wood use. Forests were also cleared for agriculture, to make plots of land that are farmable. Overgrazing by livestock led to deforestation in some areas that was permanent and in turn ruined ecosystems. Urbanization resulted in the clear-cutting of tracts of forest for building sites. [8] The effects of deforestation were numerous and extensive, most commonly resulting in erosion, flooding, and the disruption of water supply, and siltation. As Marsh suggests, local climates also changed when forests are removed. All of these factors can also negatively harm an economy and inflate the prices.

There is evidence of conservation efforts in antiquity to combat deforestation in order to preserve the remaining timber for future use and lessen the negative effects that it resulted in, similar to the emphasis of 19th century conservation. Private efforts included farmers and landowners keeping certain areas forested. Cato and Varro's treaties on agriculture include efforts to conserve both the forests and the soils. Cato lists his opinion of the necessary inclusions for the most lucrative

[7] Marsh, *Man and Nature*, 135.
[8] Hughes, *Environmental Problems*, 68-78.

lands.[9] Both authors stressed the practices of crop rotation and proper fertilization to keep the productivity of soils. According to Hughes, government efforts to curb deforestation stemmed from economic and military importance of forests. They regulated everything from trade to harvest to construction. They also encouraged private exploitation of forests by leasing the rights to cut trees on public lands to make revenue. Laws were created to encourage the protection of forests.[10]

Erosion was another significant environmental issue that the people in antiquity both created and had to deal with, as Marsh illustrates in his "Introduction." Deforestation led to treeless land, and therefore unprotected soil that was easily washed away with rainfall. This erosion of topsoil from highlands to lowlands had multiple consequences. Wetlands were created at a faster rate than natural. Plato illustrates the phenomenon of erosion leaving lands disturbed and unfertile in his *Critias*, noting:

> The soil which has kept breaking away from the high lands during these ages and these disasters, forms no pile of sediment worth mentioning, as in other regions, but keeps sliding away ceaselessly and disappearing in the deep. And, just as happens in small islands, what now remains compared with what then existed is like the skeleton of a sick man, all the fat and soft earth having wasted away, and only the bare framework of the land being left.[11]

Torrential floods resulted from the removal of trees because of lack of absorption and impediment of rainfall. Erosion also led to increased salt accumulation in the soil because of the increased concentration of salts in the irrigation water, which in

[9] See Cato, *On Agriculture*.
[10] Hughes, *Environmental Problems*, 83-85.
[11] Plato, *Critias*, 111B. Translated from Perseus Digital Library.

turn reduced agricultural productivity.[12] Negative effects such as these must have consequently had negative economic and social effects.

Marsh cites human mistreatment as the cause of environmental degradation in the Mediterranean, but equally responsible is the tyrannical rule that the Roman Empire was under. He states that it is more, "the result of man's ignorant disregard of the laws of nature, or an incidental consequence of war, and of civil and ecclesiastical tyranny and misrule."[13] Marsh coins this the *causa causarum*, or cause of causes. He claims that:

> The acts and neglects which have blasted with sterility and physical decrepitude the noblest half of the empire of the Caesars, is, first, the brutal and exhausting despotism which Rome herself exercised over her conquered kingdoms, and even over her Italian territory; then the host of temporal and spiritual tyrannies which she left as her dying curse to all her wide dominion, and which, in some form of violence or of fraud, still brood over almost every soil subdued by the Roman legions.[14]

Marsh discusses the taxes that Rome imposed on agriculture that left the farmer with little profit, the lack of population because of military conscription, harsh restrictions on industry, and forced and unpaid public work expediting the mistreatment of the land. According to Marsh, these conditions also led to large tracts of uncultivated or deserted land left to waste with lack of organized husbandry that was created by humans as a substitute for nature's natural controls.[15]

Later analysts agreed with Marsh's observations that taxes were high in the agricultural sector because it was the dominant source of production and commerce

[12] Hughes, *Environmental Problems*, 81.
[13] Marsh, *Man and Nature*, 5.
[14] Marsh, *Man and Nature*, 5.
[15] Marsh, *Man and Nature*, 7.

in antiquity, paying for the administration and army. They similarly concluded that this situation had a negative impact on the environment. When productivity was high, the taxes were not a burden, but when it was low it was repressive for farmers. There was a tax enacted in the early 3rd century CE that set an annual tax despite differing yields, forcing farmers to exhaust their land and its productivity. Hughes states that, "The dwindling of population in the late Roman Empire resulted from the inability of rural families, after paying rent, taxes, and other exactions, to rear enough children to offset high death rate."[16] To encourage farmers to use new land, the ancient governments gave and sold land in their newly acquired territories for farming. There was a similar pattern occurring in the United States in the 1800's; a shortage of labor availability made it easier for farmers to clear-cut areas. As Marsh discussed, land abandonment was a major cause of land misuse in antiquity. Farmers would abandon the infertile land due to soil exhaustion and move to newly cleared land, continuing this pattern and exploiting larger areas of land. Declining populations resulted from these issues including food shortages, famines, and depopulation of farming areas. Hughes notes that authors such as Varro and Columella give a model of sustainable farming in antiquity, bringing to question again why Marsh did not utilize these authors.[17]

Notions on the Fall of the Roman Empire

Marsh uses antiquity as a case study for the fall of civilizations as a result of environmental degradation. He uses his extensive knowledge of the classical world and his travels around the Mediterranean to support this argument, providing

[16] Hughes, *Environmental Problems*, 124.
[17] Hughes, *Environmental Problems,* 124-127.

specificity through the inclusion of specific scenes of environmental degradation. Multiple times throughout *Man and Nature*, Marsh compares the Roman Empire to the United States. The effect of this suggestion is to provide a projected outcome of America, one involving decay as a result of disruption of the balance with nature. Marsh subtly predicts the decline of America through this comparison with the Roman Empire. He also provides an alternative path if the environmental damage that humans have created is stopped and reversed.

As previously stated, a few authors from antiquity discussed the connection between environmental degradation and the decline of civilizations. One of these authors was Plato, determined by his passage comparing the earth to a skeleton, that was at one time healthy and expressing the cause of decline as human settlement.[18] Environmental history of the classical era was not focused on again until Marsh, and then forgotten again until the 20th century with Donald J. Hughes's *Environmental Problems of the Greeks and Romans: Ecology in the Ancient Mediterranean* and his previous edition titled *Pan's Travail: Environmental Problems of the Ancient Greeks and Romans*. The question of the reasons for the decline of the Roman Empire, however, has long been queried. Edward Gibbon first wrote on the probable causes for the decline of the Empire in his book *The Decline and Fall of the Roman Empire*, published between 1776 and 1787.[19] Gilbert F. LaFreniere, author of *The Decline of Nature: Environmental History and the Western Worldview*, notes that it is difficult to know whether Gibbon would think that environmental degradation was also a factor in Rome's decline because Gibbon focused solely on

[18] Plato, *Critias*, 111B.
[19] Edward Gibbon, *The Decline and Fall of the Roman Empire* (London: Warne, 1872).

the human causes.[20] Until recently, most historians have blamed the decline on varying degrees of social, economic, political, military, religious, and demographic causes. According to LaFreniere, the earth has been treated like a "static backdrop" in history, and corresponds to the anthropocentric framework of the western worldview of history.[21]

Almost a century after Gibbon published his works on the reasons for the decline of the Roman Empire, Marsh's *Man and Nature* was published, attributing the fall to a confluence of natural and human causes. LaFreniere connects this new environmental consideration to the advancement in science, specifically the understanding of the basic principles of geology and Darwin's theory of evolution, both of which removed God from the natural phenomena of earth. This application of science to further historical arguments did not continue to be used widely. LaFreniere states, "Unfortunately, Marsh's integrated scientific-historical approach to history was to be the exception rather than the rule for historians who developed their own sub-discipline outside the mainstream of academic history."[22]

J. Donald Hughes was the first author to extensively write on the topic of the environment in the ancient world and its connection to the decline of the Roman Empire. Hughes mentions Marsh in his work when discussing early observers of the damaged Mediterranean landscape, stating, "Visitors to those lands experienced in land-use management observed such damage as early as the mid-nineteenth

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[20] Gilbert F. LaFreniere. *The Decline of Nature: Environmental History and the Western Worldview* (Academia Press, 2008).
[21] LaFreniere. *The Decline of Nature,* 53.
[22] LaFreniere, *The Decline of Nature*, 57.

century, starting with the versatile George Perkins Marsh."[23] In his book, Hughes later credits Marsh for observing the negative effects that deforestation had on the Mediterranean basin.[24] Hughes, like Marsh, attributes the convergence of both natural and human factors to the decay of the Greco-Roman Empire. Hughes echoes Marsh in many ways, placing the majority of the blame for the declining Empire on human mistreatment of the earth and emphasizing the extent of the damage by stating and showing examples of how it could still be seen in their respective lifetimes. A summary of Hughes' thesis can be seen in his statement from *Environmental Problems of the Greeks and Romans*: "The ancients failed to adapt their economies to the environment in harmonious ways, placed too great a demand on the available natural resources, and then depleted those resources."[25]

The idea of a balance with nature is present in both Hughes and Marsh's work. They share the belief that there is a natural balance with the environment that humans must maintain or risk decline of their civilizations. Hughes states, in reference to the Greco-Roman Empire, "Thus they failed to maintain a balance with nature that is necessary to the prosperity of any human community, and the resulting environmental deterioration is still evident in the landscape."[26] Over a century earlier, Marsh wrote a similar statement, proclaiming,

> The ravages committed by man subvert the relations and destroy the balance which nature had established between her organic and her inorganic creations…within that brief space of time which we call "the historical period," they are known to have been covered with luxuriant woods, verdant

[23] Hughes, *Environmental Problems*, 2.
[24] See Hughes, *Environmental Problems*, 77-8.
[25] Hughes, *Environmental Problems*, 224.
[26] Hughes, *Environmental Problems*, 224.

> pastures, and fertile meadows, they are now too far deteriorated to be reclaimable by man, nor can they become again fitted for human use…[27]

Marsh's notion that environmental degradation in part led to the decay of the Roman Empire was evidently revolutionary for his time.

[27] George Perkins Marsh, *Man and Nature*, 43-4.

Chapter 4: Marsh's Influence and the Continuance of the Roman Metaphor

Marsh's *Man and Nature* is credited with influencing the major figures involved in forest conservation in the late 19th and early 20th century, including Franklin B. Hough and Gifford Pinchot, and helping pave the way towards creating public conservation policy at both the state and federal level. Virtually all interested in forestry during this time had read Marsh and incorporated many of his lessons into their own. The leaders in the field of forestry often cited the influence that Marsh had on their personal interest in forestry and used his works to support their own thinking. By the time that Theodore Roosevelt was in a position to advance conservation policy, the Roman metaphor was used to show the inevitability of decline as a result of environmental degradation and to argue for the need for conservation policy in the United States. Some suggest that this metaphor is a common conception among those interested in forestry, and do not discuss it in detail for that reason. The continuance of Marsh's Roman metaphor was used to support the efforts of the Division of Forestry in conserving forested land.

The Use of the Roman Metaphor in Western Policy

The ancient Roman metaphor has been particularly present in Western societies, perceiving a form of lineage and inheritance from their former greatness. During the Progressive Era in America, which began around the time of Marsh's death, the Roman metaphor was frequently used to either validate or denounce the conditions of the time. According to Kristofer Allerdeldt, author of "Rome, Race, and the Republic: Progressive America and the Fall of the Roman Empire, 1890-1920,"

"Throughout this period, the symbols of Rome were explicitly used to justify or condemn expansion, warn of the dangers of immigration and commercialization, attack America's enemies, and praise the nation's allies."[1] Rome served as both an example and a cautionary tale for people during this time. One of the motivations for using this metaphor was the perception that America was Rome's heir and inherited their destiny for greatness.

The decline and fall of the Roman Empire was a particularly frequent correlation that people made to their contemporary circumstances. The significance of the decline made it an easy allegory to be used in the future, with the benefit of hindsight. It could be and has been used by a diverse range of people; according to Allerdeldt: "Idealists, imperialists, demagogues, and opportunist have drawn on it through the centuries from before Charlemagne to Hitler."[2] During the Progressive Era, the Roman fable was used by many to support or criticize the growing modernity. The wealthy elite during this time, such as Marsh, were familiar and versed in classical studies, leading to the use of the Roman metaphor that was both "scholarly and yet ubiquitous."[3] Many such as Marsh used the Imperial Roman period to warn against the growing opulence and corruption in America. For others, it served to arouse a sense of destiny and inheritance of imperial strength.

Marsh used Imperial Rome as a case study for the decline of civilizations through neglectful and decadent ruling, accelerated by the overexploitation of the

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[1] Kristopher Allerfeldt, "Rome, Race, and the Republic: Progressive America and the Fall of the Roman Empire, 1890-1920," *The Journal of the Gilded Age and Progressive Era* (7:3, 2008), 297.
[2] Allerfeldt, "Rome, Race, and the Republic," 298.
[3] Allerfeldt, "Rome, Race, and the Republic," 298.

land. This was not the last time that Imperial Rome would be illustrated in such a light. Others in the late 19th century used the fall of Imperial Rome as a prediction for the demise of America. Allerfeldt uses cultural historian Morris Berman's words to summarize the feelings of the Progressive Era, stating, "he claims that the United States today is the decadent product of the corruption of the ideals of an earlier greater time. He maintains that the problems arising from plutocracy, religious fundamentalism, and misguided foreign policy will lead America to a new 'dark age.'"[4] Others, however, made the opposite claim and argued that the Imperial Roman Empire brought about political unity and stability, at least in its beginning.

Theodore Roosevelt was convinced of the notion of a lineage descent from the Romans, through the British and Americans, believing that they held a "shared destiny."[5] This belief can be seen in his politics, which follow an Anglo-Saxon agenda. Allerfeldt states that Roosevelt, "Continued to argue that the only way to lead the nation out of the mire of the Gilded Age was to reinstate and export the moral certainty and Roman virtues that had prevailed in the great struggles of the Revolution and Civil War, conquered the West, and built American business supremacy."[6]

After this increase in the Roman metaphor as an allusion to American greatness, it also became a prediction for America's decline. According to Allerfeldt, "The greatness of Rome was tinged with the knowledge that its very power had contained the seeds of its demise. Like Rome, America's rise to world hegemony

[4] Allerfeldt, "Rome, Race, and the Republic," 299.
[5] Allerfeldt, "Rome, Race, and the Republic," 302.
[6] Allerfeldt, "Rome, Race, and the Republic," 307.

would bring new opportunities for the corruption, decadence, and ultimately, collapse of the republic."[7] As suggested by both Richards and Allerfeldt, American neoclassicism was renewed by the turn of the century and could be seen reflected in the architecture and other aspects of American culture.

The Roman metaphor has been used for many purposes, and often in contention to itself. To some, the allegory showed the dangers of capitalism but to others it showed the possibility for advancement. It illustrated the inheritance of the legacy of a great Empire to some, to others it foreshadowed the decline of American empire. Another major role that the Roman metaphor came to play was around race distinctions, arguing both for and against them. Allerfeldt states:

> Few influential people in turn-of-the-century America objected to the drawing of racial distinctions on moral as well as political grounds. Others, of course, saw a great moral imperative in drawing attention to supposed race differences…Once again, the Roman analogy came into play to support both side of the argument.[8]

This dichotomy demonstrates the prevalence of the Roman metaphor in Western societies, but also the subjective manner that it is often used in. Political, social, cultural and other circumstances affect the way in which classical references are used. The situation contemporary to Marsh, therefore, influenced his use of the Roman metaphor, as well as the reception that it had on others for the promotion of conservation. Presumably because of Marsh, the decline of the land in the Mediterranean became a parable that was known and used by many interested in conservation around the time of Marsh. Marsh's influence led to the creation of federal agencies and conservation policy beginning as early as the mid 1800s.

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[7] Allerfeldt, "Rome, Race, and the Republic," 302.
[8] Allerfeldt, "Rome, Race, and the Republic," 311-2.

19th Century Land Use and Policy

According to MacCleery, author of *American Forests: A History of Resiliency and Recovery*, "The single most important event in the evolution of the modern American landscape was the clearing of forests for agriculture, fuelwood, and building material."[9] This clearing began prior to European settlement, but was intensified following it. The colonial and early nation's economy was resource based and the supposed abundance in America in comparison to the shortages in Europe led to the perception of inexhaustibility, causing national policy to subsidize development rather than promote conservation. The Louisiana Territory purchase in 1803 doubled the area of the nation, which was put in the public domain and sold off rapidly.[10] As people began inhabiting these new territories, forests were cut down and converted to cropland; by 1850, the total cropland area had increased to 76 million acres, 56 million more acres than fifty years earlier.[11] In addition to the conversion of cropland, industry was also driving the deforestation of the land. Wood for fuel was the main cause of forest depletion from both the domestic and industrial sector until the late 19th century. Post-Civil War urban expansion drove the need for building material. Lumber production replaced the need for fuel, increasing from 5.4 billion board feet annually in 1850 to 44.5 billion in 1910.[12] According to Allin, this period was, "characterized by territorial expansion, rapid economic growth, and westward migration; all encouraged by a superabundance of

[9] Douglas W. MacCleery, *American Forests: A History of Resiliency and Recovery* (U.S. Forest Service, 1992), 3.
[10] Craig W. Allin, *The Politics of Wilderness Preservation* (Westport, London: Greenwood Press, 1982), 8-9; MacCleery, *American Forests*, 14.
[11] MacCleery, *American Forests*, 14.
[12] MacCleery, *American Forests*, 23.

natural resources, an expansionist land policy, and an exploiting, profit-minded populace."[13]

Public policy promoted the deforestation of the land in this period. According to *Forests and Forestry in the American States*, "Acts of Congress and the state legislatures placed resources and land in the hands of as many entrepreneurs and settlers as possible so that they might build the Nation and move to the country inexorably on towards Manifest Destiny."[14] The land was seen as limitless and the efforts by the state and federal government illustrated that perception. Various acts tempted settlers ever westward for cheap land that the government basically gave away. But sluggishly, "like a giant stupid with sleep,"[15] early conservationists like Marsh and other concerned citizens drew public attention to the worsening degradation of the environment and negative effects that could happen if nothing was done to reverse it. The rapid population growth and subsequent land conversion required to meet the domestic and industrial exploitations, as well Marsh's background work, set the stage for the first conservation movement to mobilize.

Early Conservationists and Marsh's Influence

Franklin B. Hough, first Federal Forest Agent, was the first to try to convert Marsh' s ideas into action. Though trained as a surgeon, Hough's interest in forest conservation began during his stint as the Superintendent of the 1865 New York State census, during which time he compiled timber data and became concerned

[13] Allin, *The Politics of Wilderness Preservation*, 15.
[14] Ralph R. Widner (Ed.), *Forests and Forestry in the American States: A Reference Anthology* (Washington, DC: The Association of State Foresters), xvii.
[15] Widner, *Forests and Forestry in the American States*, xvii.

about the rapid rate of forest depletion. In 1872, Hough was appointed to a New York State commission studying the need for a public forest park in the Adirondacks as a means of protecting the headwaters and forest resources of the region. Shortly thereafter, he wrote a paper on the subject of forest depletion titled, "On the Duty of Governments in the Preservation of Forests," for the American Association for the Advancement of Science. This paper evokes Marsh's ideas, though not the classical reference. After struggling for approval and funding from Congress and being rejected multiple times, support for a forestry study was finally approved in 1876, when it was switched from under the Public Lands Committee to the Department of Agriculture.[16] The Secretary of Agriculture, Franklin Watts, hired Hough as the nation's first forester in 1876 to conduct the study.[17]

Hough was greatly influenced by Marsh and his works from the beginning of his interest in forestry, and later became personally acquainted with him.[18] Hough's paper "On the Duty of Governments in the Preservation of Forests," drew heavily from Marsh's ideas in *Man and Nature*. The paper discusses the overuse of resources in the Mediterranean and European countries, particularly timber, that resulted in a permanent damage to their environment. In the paper, Hough declares the need for the federal government to develop an agency to administer land in the United States in order to avoid the same environmental damage that occurred in the Mediterranean. Hough continually stressed the economic utility of forests, which

[16] Harold K. Steen, *The U.S. Forest Service: A Centennial History* (University of Washington Press, 2013) 9-13.
[17] Gregory A. Barton. *Cambridge Studies in Historical Geography: Empire Forestry and American Environmentalism* (Cambridge: Cambridge University Press, 2002), 131.
[18] Lowenthal, *George Perkins Marsh*, 303. Reference in footnote 28.

Marsh did not often explicitly say, but implied. Hough states, "It must come to be understood that a tree or a forest, planted, is an investment of capital, increasing annually in value as it grows, like money at interest, and worth at any time what it has cost--including the expense of planting, and the interest which this money would have earned at the given date."[19] Hough goes on to give specific examples of measures and laws that could be enacted by Congress to increase this capital investment and prevent the degradation of the land, many of which Marsh also suggests in *Man and Nature* such as exempting forests from taxation and putting taxes on wood for fuel and timber. Both authors also state the importance of increasing public understanding of the dangers of excessive felling of trees.[20] It is known that Hough read Marsh, and it is likely that he was using lessons from *Man and Nature* in his speech, especially when referencing the Mediterranean. Hough later credits Marsh as being the "pioneer crusader" in the opposition against excessive felling.[21]

Marsh's warnings in *Man and Nature* about the consequences of excessive tree felling on watersheds in the Adirondacks had a major influence on Hough, and the creation of policy protecting the area. Hough uses similar language to Marsh when speaking about the importance of forest conservation for watershed protection in New York State. Hough emphasizes the ecological functioning of a forest as a whole

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[19] Franklin B. Hough. "On the Duty of Governments in the Preservation of Forests" American Association for the Advancement of Science, 1873.
[20] Marsh, *Man and Nature*, 233-4 and Hough, "On the Duty of Governments in the Preservation of Forests", 7.
[21] David Lowenthal, "Forest Stewardship: Marsh, Pinchot, and America Today" *Pinchot Lecture Series*. 2001. 3.

system, a notion that he presumably adopted from Marsh. According to Phillip Terrie, author of an article on the influence of Marsh in the Adirondack Explorer:

> The debates in the New York legislature and in the state constitutional convention, as well as the discussions in newspapers and magazines of the day, all make it clear that Marsh's connection between mountain forests and watershed viability was the essential argument leading to protection of the Adirondacks.[22]

Because of the influence of Marsh, Hough, and other foresters in the area, the Adirondacks were set aside as a Forest Preserve in 1885 by the New York State legislature, and nine years later would be designated as a federal Forest Preserve. Marsh's argument for the value of the Adirondacks went further than the aesthetic and recreational value and emphasized the ecological functioning and future use that needed to be maintained through conservation policy.[23] Marsh's argument was more effective in influencing the creation of policy, and was adopted by foresters such as Hough to advance conservation policy.

Hough believed that the creation of public forest reserves and the enforcement of existing laws was the first step in alleviating the problems surrounding forest depletion. When Hough was not traveling around the states to observe and gather data about forest conditions, he was campaigning in Washington to gain support for his causes.[24] Hough wrote a comprehensive *Report on Forestry* to promote a federal division dealing with the conservation of forests in America. His works and campaigns were effective; in 1880, the Division of Forestry was

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[22] Phillip Terrie, "Man and Nature: George Perkins Marsh" *Adirondack Explorer* (Sep. 2014).
[23] Terrie, "Man and Nature: George Perkins Marsh".
[24] Steen, *The U.S. Forest Service*, 16-7.

formally created as a federal agency, and Hough formally became chief of forestry.[25] Aware of Marsh's expertise in the field, Hough begged him to return to America to guide the budding forestry division, which Marsh declined.[26]

In 1883, the newly appointed Secretary of Agriculture George B. Loring demoted Hough and replaced him with Nathaniel Egleston, the second chief of the Division of Forestry in 1883.[27] Egleston's background was in religion, originally trained as a minister. He found early inspiration in the field of forestry from Marsh's work and became an active committee member of the American Forestry Association.[28] Egleston published multiple essays on the topic of forestry, one of the most famous being "What We Owe to the Trees," published in 1882.

Egleston's essays show clear influence from Marsh's work, whom he credits for awakening him to the destruction of overexploitation and the need to develop new techniques. According to Miller, "Each reflects the heavy influence of George Perkins Marsh on Egleston's new found faith in the necessity for and capacity of human stewardship to restore cut-over and abused lands; taken together, they suggest that his signal role in the emerging forestry movement was as a popularizer of Marsh's compelling ethic."[29] Egleston's essay, "What We Owe to the Trees," written in 1882, prior to his appointment as chief of forestry, cites and discusses Marsh's work in the context of advocating for federal intervention in forest

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[25] Char Miller. "Amateur Hour: Nathaniel H. Egleston and the Forestry Movement in Post-Civil War America," *Forest History Today* (Spring/Fall 2005): 20-1.
[26] Lowenthal, *George Perkins Marsh*, 303. Also see, David Lowenthal, "Forest Stewardship: Marsh, Pinchot, and America Today" *Pinchot Lecture Series*. 2001.
[27] Steen, *The U.S. Forest Service*, 19-20.
[28] Steen, *The U.S. Forest Service*, 20.
[29] Miller, "Amateur Hour", 21-2.

conservation. The essay starts by alluding to Marsh's *Man and Nature*, discussing the more "civilized" periods, assumedly referring to before the Imperial Roman period, and places where people found companionship with the trees and lived among the "dryads and hamadryads."[30] Egleston speaks of the destruction of the environment in past European civilizations, mainly through the loss of trees, and states that America is following the same course as those before. Egleston summarizes the first few pages of Marsh's *Man and Nature*, reiterating his main argument. In reference to the Mediterranean, Egleston states:

> Never was any region of the earth better fitted by climate, soil, and natural adjustments of land and water to each other, for the abode of man in highest state of civilization, and in the possession of the greatest power, intelligence, and happiness—in short, with the promise of the greatest and most permanent prosperity…Now what are they? The mere wrecks of their former greatness, like stranded ships upon the shore of time for men to gave at and take warning.[31]

After this restatement, Egleston describes Marsh as the most "careful" and "competent" authority on the subject matter, and quotes Marsh's statement: "There are parts of Asia Minor, of Northern Africa, of Greece, and even of Alpine Europe where causes set in action by man has brought the face of the earth to a desolation almost as complete as that of the moon."[32] Similar to Marsh, Egleston warned of the impending troubles as a result of overuse and subsequent land failure, including erosion and water supply, and called for action from the government to curb it.

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[30] Egleston, "What We Owe to the Trees" (1882). Referenced from Miller, "Amateur Hour," 23. Both *dryads* and *hamadryads* are Greek mythological creatures that were associated with trees.
[31] Egleston, "What We Owe to the Trees" (1882). Referenced from Miller, "Amateur Hour", 24.
[32] Marsh, *Man and Nature*, 43.

Egleston's time in office as chief was troubled from the beginning, and rumors swirled about bureaucratic corruption surrounding his appointment. His relationship with the new secretary of agriculture, Norman Colman, was poor and he often felt too insecure to take decisive action. When he finally left in 1866, his time in office was shrouded by inaction and uncertainty, leading to administrative failure. Despite Egleston's lack of impact, Hough's legacy had established the Division of Forestry as part of the federal government, and although it would another two decades for Congress to approve an effective forest agency, the movement had begun.[33]

By the late 19th century, America was rapidly urbanizing. Fear that there was no longer a frontier was rampant after the 1890 census, with many worrying what that meant for the economic prosperity and opportunity that went along with it.[34] Congress was slow to recognize the urgency of forest conservation, but state and non-governmental actions were developed to further the movement. The first American Forestry Congress was held in 1882. Charles Sargent, a renowned botanist, was present at this meeting, and would later publish an extensive report on forests that predicted a national timber famine would occur in the near future.[35] Despite growing awareness and interest in forestry, there was no national forest policy in America, no schools of forestry, and no forestry practices on private or public land. But by 1885, many states were developing forest conservation policies and implementing them on their own, in large part because of the warnings of

[33] Steen, *The U.S. Forest Service*, 21.
[34] Steen, *The U.S. Forest Service*, 22-3.
[35] Widner, *Forest and Forestry in the American States*, xix.

Marsh and Hough. Several states established state forest agencies, some failing in their early stages, but others, such as New York, developed a forest policy that has continued through present day.[36] The states paved the way for the federal adoption of forest protection.

The federal government's forestry efforts continued to be limited to the chief of forestry and his small staff. Bernhard Fernow became the third chief of forestry in 1886, marking a transition to the "professionalization" of the American forestry effort. While Hough, Egleston and even Marsh were deeply interested in forestry, they lacked professional training in the field, mainly due to a lack of institutions that offered degrees in scientific forestry. Fernow, born in Prussia, was schooled at a German forest academy.[37] He began working as a forestry consultant to a firm in Pennsylvania, and was quickly noticed by leaders at the American Forestry Association events. Fernow was recommended to be the next chief of forestry under President Grover Cleveland.

Fernow was familiar with Marsh, and declared Marsh the "ablest writer on the subject" [38] on the topic of forests and how they affect climate, soil, and water conditions. Fernow echoes Marsh in his "Report upon the Forestry Investigations of the U.S. Department of Agriculture, 1877-1898," suggesting that Marsh's warning of overuse in the Mediterranean was common knowledge at the time. The report focuses on the importance of establishing a Division of Forestry for forest

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[36] Widner, *Forest and Forestry in the American States*, xix-xx.
[37] Miller, "Amateur Hour", 23.
[38] Andrew Denny Rogers III, *Bernhard Eduard Fernow: A Story of North American Forestry* (Princeton: Princeton University Press, 1951), 153.

preservation, emphasizing the practical importance of it for the American people. In the report, Fernow states:

> In European countries, especially in Italy, Germany, Austria, and France, where the injuries resulting for the cutting off of timber have long since been realized, the attention of governments has been turned to this subject by the necessities of the case, and conservative measures have in many instances been successfully applied, so that a supply of timber has been obtained by cultivation, and other benefits resulting from this measure have been realized.[39]

Later in the Report, Fernow mentions Marsh's work, in which, "the evil effects on cultural conditions of forest destruction were ably and forcibly pointed out."[40]

Significant progress was made during Fernow's time in the Division of Forestry. During his first year in office, Congress gave statutory recognition to the Division of Forestry, allowing Fernow to have more autonomy from the Secretary of Agriculture. However, the Division still lacked power over federal forest land, which was still controlled by the Department of the Interior. Laws regarding federal forest land were coming under increased pressure from people who sought to legally, and illegally, exploit them. To combat this, Fernow proposed to stop entry into federal forest land until it was classified, and gave greater power to the government to regulate use of federal forest lands. The bill was rejected but it provided the foundations for future legislation. A committee of the American Forestry Association, including Fernow, Egleston, and Edward Bower of the General Land Office met with Secretary of the Interior, John W. Noble, in 1891 and convinced him of the importance of protecting public forest land. The Harrison administration

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[39] Berhard Eduard Fernow, "Report upon the Forestry Investigations of the U.S. Department of Agriculture, 1877-1898," *H.R. Doc No. 181*, 55th Cong., 3rd sess. (1899), 37.
[40] Fernow, "Report upon the Forestry Investigation", 168.

passed The Forest Reserve Act of 1891, which ended the giveaway of public land to railroad companies and established the government's role in protecting wildlife. The final provision of the Act, Section 24, gave the president the right to make public land into forest reserves.[41]

President William Henry Harrison immediately set aside the Yellowstone Forest Reserve at the end of 1892, and had created fifteen "reserves" totaling more than 13 million acres by the end of his presidency. President Cleveland added 5 million more acres, but stopped because there were not yet means in place to protect the reserves. There was widespread support for legislation to establish administration of the forest reserves, but there was difficulty passing bills regarding which department would administer them.[42] Fernow favored a slow approach to expanding forest reserves to avoid widespread public opposition, but eager foresters such as Gifford Pinchot, a rising young forester, convinced President Cleveland to create thirteen reserves over 21 million acres, which inspired a political backlash from the public. Debate around the proposed forest reserves ensued. As a result, the Pettigrew Amendment to the Sundry Civil Appropriation bills assured that reserves would be open for use instead of complete preservation. This Amendment was supported by all sides, and would be the foundation for federal forest reserve management for decades to come.[43] After these amendments were agreed upon, the federal government had officially created forest reserves and developed the measures to protect and manage them.

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[41] Douglas Brinkley, *The Wilderness Warrior: Theodore Roosevelt and the Crusade for America* (New York: HarperCollins, 2009), 239-40.
[42] Steen, *The U.S. Forest Service*, 27-9.
[43] Steen, *The U.S. Forest Service*, 30-6.

Gifford Pinchot succeeded Fernow as chief of the Division of Forestry in 1898. Interested in forestry from a young age, Pinchot received a copy of the second edition of Marsh's book *The Earth as Modified by Human Action* for his twenty-first birthday in 1886, inspiring his career in forestry. Pinchot was also encouraged by Fernow to attend a European university and pursue forestry as a career after working under the former chief of forestry for a period. Pinchot enrolled at L'Ecole Nationale Forestiere, a French university where he studied forestry.[44] European universities had established forestry programs long before universities in America, which reflected the fact that European governments had been regulating and managing forests for years. Pinchot was one of the first Americans to attend a European university for forestry. After his formal education, Pinchot worked as Fernow's assistant at the Division of Forestry but quickly became frustrated with what he thought was all talk and no action towards legislation. Pinchot then took a job as resident forester of the Biltmore Estate in Asheville, North Carolina, a huge estate owned by the Vanderbilt family. Always impatient, Pinchot moved on after three years to become an independent forestry consultant.

Pinchot referred to *Man and Nature* as "epoch-making."[45] In the introduction to Pinchot's memoir on forestry and conservation, *Breaking New Ground*, he discusses Marsh, and limits his references to him to this section. Although previously calling Marsh's work "epoch-making," Pinchot downplays the immediate influence of it, stating "Unquestionably it started a few people thinking. But did it

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[44] Steen, *The U.S. Forest Service*, 47-8.
[45] Gifford Pinchot, *Breaking New Ground* (New York: Harcourt, Brace and Company, 1947), xvi.

indicate any general public interest in Forestry in America at the time of the Civil War?"[46] He then goes on to assert that it would be wrong to assume from Marsh's work that many of his contemporaries were meaningfully considering forestry. This introduction to Pinchot's book that essentially discusses his role in the advancement of forestry and conservation could coincide with his assertion that he was the first to come up with the idea of conservation and the interdependence of the world. Pinchot claimed this idea, "had occurred to nobody, in this country or abroad, that here was one question instead of many, one single gigantic problem that must be solved,"[47] and ignored the homage that was owed to Marsh. Although Pinchot briefly acknowledges Marsh's insights, he may not have believed that they would have any meaning to foresters who were not scientifically trained such as himself.

Boasting that he was the first professionally trained forester in America, Pinchot was appointed to Chief of Forestry in 1898. He set out to make a drastic change in the Division of Forestry and exceed his predecessors. Pinchot requested and was successful in changing his title from "Chief" to "Forester," because there were multiple chiefs in Washington but only one forester, representing the professionalization of the position and the need for formal education in the field to hold it.[48] Long frustrated by the problem of the Department of Interior having jurisdiction over forested land, Pinchot pushed for an official agreement between the Department of Agriculture and the Department of Interior. The agreement was eventually solidified; the Department of Interior would continue handing the patrol

[46] Pinchot, *Breaking New Ground*, xvi.
[47] Pinchot, *Breaking New Ground,* 322-3. See Lowenthal, "Forest Stewardship", 10.
[48] Miller, "Amateur Hour", 23.

and enforcement of laws for the forest reserves, and the Department of Agriculture would perform the studies of the reserves and create and implement management plans.

Pinchot was concerned with many of the issues discussed by Marsh during his career, and similar to both Marsh and the other previous foresters, the economic value of the land surpassed its ecological performance. According to Lowenthal, for Pinchot, "forestry's ecological functions generally took a distant second place to avowedly economic benefits of sustained-yield management."[49] By the turn of the century, Marsh's warnings were beginning to be embraced, but not his full appreciation of ecological relationships. Lowenthal states, "Marsh's environmental thrust—conserving forest cover to protect soils and aquifers and prevent excesses of stream flow—was all but forgotten in the next half century's crusade to stave off an imminent dearth of timber by finding, protecting, and planting trees."[50] The increasing demand for timber and unlikely prospects in the shrinking west intensified the fear of forest depletion.

Theodore Roosevelt became a major proponent of the conservation movement during his presidency, under the influence of Pinchot. The two first met while Roosevelt was the governor of New York in 1898, through a mutual interest in forest conservation in the Adirondacks. They quickly became close friends, since their youthful impulsiveness and love of the outdoors complemented each other well. Their friendship continued into Roosevelt's presidency, and they became so close that according to Steen, "Pinchot enjoyed telling how he, the president, and the

[49] Lownethal, "Forest Stewardship", 10.
[50] Lowenthal, "Forest Stewardship", 8.

French ambassador stripped to the buff and swam in Rock Creek Park in Washington, D.C."[51] However, before becoming acquainted with Pinchot and becoming president, Roosevelt was deeply attached to conservation issues. Interested in ornithology at a young age, Roosevelt wanted to be a naturalist when he got older. Continuing his interest in the natural world, Roosevelt became an avid hunter, and during his many trips observed the destruction that humans had on the environment. Roosevelt attended Harvard in 1876, and Columbia Law School after, but dropped out to pursue politics.[52] After a stint in politics as a New York State Assemblyman for the Republican party, he left and moved to North Dakota for a period of time, immersing himself once again in the natural world. Eventually returning to New York State, Roosevelt entered politics again and eventually was elected as Governor in 1899.[53] As Governor of New York, Roosevelt continued his commitment to conservation by advancing the park and forest programs. Roosevelt worked together with Pinchot to preserve forests and watersheds in the Adirondacks during his time as governor. According to Brinkley, "Roosevelt and Pinchot formed an alliance that would have a profound effect on the modern conservation movement. Together, they would promote America's forests with firm confidence and zeal."[54]

Roosevelt became president in 1901, when President McKinley was assassinated while he served as Vice President. As a result of his friendship with Pinchot and his own interest in conservation, there was major progress for the

[51] Steen, *The U.S. Forest Service*, 70.
[52] Brinkley, *Wilderness Warrior*, 22-120
[53] Brinkley, *Wilderness Warrior*, 142-337.
[54] Brinkley, *Wilderness Warrior*, 345.

Division of Forestry and the conservation movement. In 1902, the Department of Interior produced the first manual on administrative procedures for forest reserves, with the bulk of the content focusing on timber management.[55] During Pinchot's later years as Forester, he focused on his first major conservation campaign to avoid the timber famine that had many worried, himself included, about the future of timber supply, leading him to successfully convince the public of the issue through the use of vivid images of a woodless world.[56]

One of Roosevelt's early efforts, influenced by Pinchot, was to convince Congress that the forest reserves should be handled by the Bureau of Forestry in the Department of Agriculture rather than the Department of the Interior. This policy was disputed by some claiming "inefficiency and potential interdepartmental friction,"[57] but Roosevelt gave his final approval of it in 1905. This put sixty-three million acres of forest reserve under the administration of the Department of Agriculture, and the Bureau of Forestry officially became the United States Forest Service and the forest reserves became known as National Forests.[58]

The new Forest Service emphasized the philosophy of maximizing the benefits of forests as a natural resource for future use, the foundations of which continue today. Pinchot worked to sort out the increased administrative duties that came with the empowerment of the Forest Service, leading to the production of the first *Use Book* that included regulations and guidelines. During this time the Forest

[55] Steen, *The U.S. Forest Service*, 54-60.
[56] Steen, *The U.S. Forest Service*, 95.
[57] Steen, *The U.S. Forest Service, 72.*
[58] Steen, *The U.S. Forest Service*, 71-5.

Service expanded to include legal actions against violators, mainly dealing with offenders of the grazing rights.[59]

The conservation movement and conversation took hold under Roosevelt and Pinchot. According to Pinchot, in the early 20th century, there were multiple separate government agencies dealing with mineral resources, streams, forests, wildlife, and soil, but there was little cooperation between them. The Forest Service began bridging the gap and working with the other agencies towards the general goal of conservation. Water was a major interdepartmental issue, and other conservation agencies, including the New Bureau of Reclamation, which focused on water conservation in the West, collaborated with the Forest Service to protect the resource. In 1907, Roosevelt created the Inland Waterways Commission, a multi-use program for the development of river basins, marking the transition to this multi-use program across the country. Roosevelt also created the National Conservation Commission to secure advancement for the movement. In selecting candidates to succeed him as president, Roosevelt specifically chose William H. Taft, believing that Taft would continue his policies, including supporting policies to further conservation efforts.[60] However, around this time, Congress stalled the efforts that were being made to advance the conservation movement, mainly resenting the millions of acres of public land that became part of the national forest system. [61]

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[59] Steen, *The U.S. Forest Service*, 75-8.
[60] Steen, *The U.S. Forest Service*, 95-8.
[61] Lewis, "Theodore Roosevelt's Cautionary Tale", 53.

In his final message to Congress in 1908, Roosevelt warned against the demonstrated perils of ignoring deforestation and soil erosion through using examples provided by the widely-read Marsh and his descriptions of the Mediterranean. Roosevelt reinforced this established decline with a detailed case study of environmental degradation in China. Frank N. Meyer, an economic botanist for the Department of Agriculture, who spent three years studying plants in China, presented the information about China to Roosevelt.[62] His studies revealed that lack of forest and watershed protection played a role in the decline of imperial China. Roosevelt used this lesson in his speech to illustrate the importance of conservation programs in America and the Forest Service's mission. In his speech, Roosevelt states, "All serious students of the question are aware of the great damage that has been done in the Mediterranean countries of Europe, Asia, and Africa by deforestation."[63] This common knowledge of deforestation in the Mediterranean was presumably acquired from Marsh's *Man and Nature* or other authors taking from Marsh's work. Roosevelt's use of it here suggests that Marsh had become a staple of every person interested in forestry and related subjects. As Douglas Brinkley, author of *The Wilderness Warrior: Theodore Roosevelt and the Crusade for America*, states, Roosevelt would not have focused on issues such as the Forest Reserves had serious institutions not began to take forestry seriously, in large part because of the work of Marsh.[64]

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[62] Lewis, "Theodore Roosevelt's Cautionary Tale", 53-4.
[63] Theodore Roosevelt, "President's Annual Address to Congress", 1908. Excerpted from Lewis, "Theodore Roosevelt's Cautionary Tale", 56.
[64] Brinkley, *The Wilderness Warrior*, 245.

Although Roosevelt's "conservation biography by Douglas Brinkley *The Wilderness Warrior: Theodore Roosevelt and the Crusade for America* does not mention that Roosevelt read Marsh, Marsh's ideas and influence reached Roosevelt and assumedly led to his use of the Mediterranean as a known example of human caused environmental degradation. In his message to Congress, Roosevelt uses China and the Mediterranean as examples of what would happen in America if the government did not adapt more conservation efforts into their duties. Ending his speech with caution, Roosevelt states:

> What has thus happened in northern China, what has happened in Central Asia, in Palestine, in North Africa, in parts of the Mediterranean countries of Europe, will surely happen in out country if we do not exercise that wise forethought which should be one of the chief marks of any people calling itself civilized. Nothing should be permitted to stand in the way of the preservation of the forests, and it is criminal to permit individuals to purchase a little gain for themselves through the destruction of forests when this destruction is fatal to the well-being of the whole country in the future.[65]

This passage of Roosevelt's address echoes what Marsh states in *Man and Nature*: "It is certain that a desolation, like that which has overwhelmed many once beautiful and fertile regions of Europe, awaits an important part of the territory of the United States…unless prompt measures are taken to check the action of destructive causes already in operation."[66] Marsh and all of the previous foresters stress a similar "forethought" that Roosevelt speaks of, all emphasizing the importance from a resource-use viewpoint. They are encouraging conservation, not preservation at this point in time. There was a widespread fear of national decline that furthered the emphasis on a need for conservation to prevent during this time. Despite this stance

[65] Roosevelt, "President's Annual Address to Congress", 1908. Excerpted from Lewis, "Theodore Roosevelt's Cautionary Tale", 57.
[66] Marsh, *Man and Nature*, 232.

of utilizing resources economically, including future use, and a fear of national decline, most Americans did not agree with efforts of Roosevelt and the Division of Forestry, continuing to see the forests as an endless resource that could not be depleted.

The conception of conservation, which Pinchot considered the "foundation of permanent peace amoung the nations," rapidly spread across the United States, despite the lack of support from many citizens.[67] Pinchot states, "Today, when it would be hard to find an intelligent man in the United States who hasn't at least some conception of what Conservation means, it seems incredible that the very word, in the sense in which we use it now, was unknown less than forty years ago."[68] Many historians label Roosevelt the first "conservationist," to an extent ignoring Pinchot, Marsh, and others prior. According to Brinkley, the term was first seriously coined with Marsh's *Man and Nature*, but popularized after Pinchot's 1910 manifesto *The Fight for Conservation*, which Roosevelt provided the introduction for.[69] After Marsh's preliminary foundation, Pinchot and Roosevelt established the modern term "conservationist," paving the way for the progression of the movement in the following century.

By the turn of the century, the view of forests and their inexhaustibility had shifted. Forestry was becoming an established profession and beginning to be taught in the major colleges. State forestry programs were established to begin what the federal government had not yet been able to do. However, at the same

[67] Pinchot, *Breaking New Ground*, 324.
[68] Pinchot, *Breaking New Ground*, 326.
[69] Brinkley, *The Wilderness Warrior*, 5-6.

time, devoted activists of forestry, including Hough, Egleston, Fernow and Pinchot, had established a place for forestry in the federal government. Through their efforts, and the support of President Roosevelt, the Forest Service was established to study and manage National Forests, also reflecting a national shift in the perception of the importance of forested lands. Although the amount of forested land remained similar to the previous century, and wide swaths of deforested areas persisted, the forestry and conservation movement had successfully established the foundations for change. In many ways, Marsh had set the precedent for this change, and influenced the major foresters in realizing the importance of forest conservation. Marsh's illustration of the connection between environmental degradation and the decline of civilizations was widely accepted and used by many arguing the need for forest protection.

Conclusion

George Perkins Marsh argues in his book *Man and Nature* that the decline of the Mediterranean civilizations in antiquity was, in part, the "result of man's ignorant disregard of the laws of nature."[1] Marsh's pioneering notion of the impact that land exploitation has on the viability of empires was the first time that it was explicitly made. This argument was not so overtly made again until the late 20th century, with the first edition of J. Donald Hughes' book *Pan's Travails: The Environmental Problems of the Ancient Greek and Romans*. Marsh utilized the Roman metaphor to suggest that America's "empire" too could decline as a result of mistreatment of the natural world. Although Marsh seemingly manipulates the Latin that he includes, he uses ancient sources, particularly from the Imperial period, to support his argument.

Marsh came to the conclusion of the relationship between environmental degradation and the fall of civilizations through a combination of his fluency in Classics and his time spent traveling in the Mediterranean in the mid-1800s. Growing up in the Green Mountains of Vermont shaped Marsh's view of the natural world. He saw the negative affects of clear-cutting from a very young age and eventually came to conclusions about their causes and ways to remediate the harm. As he grew up, Marsh mastered the classical languages and was well versed in works from antiquity. Jumping from career to career, Marsh eventually became a foreign diplomat in Turkey and later Italy. During his time in the Mediterranean, Marsh observed the damaged land that he compared to the ancient texts, leading to

[1] Marsh, *Man and Nature*, 5.

the idea and creation of his work *Man and Nature*, which examines the extent that humans negatively affect their environment.

Man and Nature, published in 1864, repeatedly references the Mediterranean and authors from antiquity. Marsh's knowledge of the classical world is clear, but he often leaves out indications as to which author he is drawing the references from. The authors that he does include are mainly from the Imperial Roman period, a time that Marsh criticizes for its opulence and damaging rule and credits for the decline of the Empire. These authors include Pliny and Seneca. Interestingly, Marsh excludes seemingly obvious authors, such as Cato, Varro, and Columella, who discuss agriculture and early conceptions of deforestation and soil erosion. One can only speculate the reasons behind Marsh's inclusion and exclusion of certain authors from antiquity, but reasons could include simply stylistic preference, which authors were being read during his lifetime, or deliberate use of authors from the Imperial period to support his argument. Later studies about environmental degradation in the ancient world proved many of Marsh's observations in *Man and Nature* correct. Deforestation and its subsequent negative effects such as soil erosion were widespread in antiquity. Hughes documents these problems in his work, reiterating much of what Marsh stated.

Marsh's early work in the study of the natural world and human impact on it earned him the title of father of conservation. The idea that humans could permanently damage the environment was just beginning to be circulated by a select few around Marsh's time, and was increased after Marsh's publication of *Man and Nature*. His work influenced the early foresters who contributed to the creation

of a federal agency to conserve forested land in the late 19th and early 20th century. Hough, Egleston, Fernow and Pinchot, the first four major forestry figures, all had read Marsh and taken his message to heart. President Roosevelt was similarly influenced directly by Marsh or those who were familiar with him. Marsh's Mediterranean warning became a common parable to those involved in the early conservation movement, so much so that it was often briefly mentioned in the terms of we all know what happened in the Mediterranean and then moved on from. Although the connection between the exploitation of the land and the fall of the Roman Empire was not made as explicitly as Marsh had, it is clear that most early conservationists were aware of the argument and acknowledged it in some way in their own arguments.

Marsh uses a historical example to warn against the overexploitation of the land that he observed happening in America. However, he states that, "The human operations…though our limited faculties are at present, perhaps forever, incapable of weighing their immediate, still more their ultimate consequences."[2] In this passage Marsh predicts humans' lack of ability to properly understand the long-term repercussions of our decisions, specifically in regard to the natural world, which I argue is as relevant today as it was in the mid-1800s. Historical insight can provide warnings as to how to avoid these consequences of mistreatment of the environment. Looking at the mistakes that the Romans and the Americans in the 1800s made to degrade their environment, through policies or lack-there-of and general attitude, provides the context to not make them again today. Some of this

[2] Marsh, *Man and Nature*, 548-9.

progress does come about through a better scientific understanding of all the elements of the natural world. But it also comes from an awareness that historically humans have abused the land and a consistent effort to reverse this relationship.

Policy decisions regarding the environment can benefit from greater consideration of historical hindsight. Classical studies can benefit from the analysis of modern issues and how they are applicable to the ancient world. Examining history and the human caused environmental damages and disasters repeatedly shows the need to look further into the future when making policy decisions, rather than just the immediate future. Marsh noticed the need for this in the mid-1800s, discussing in his book the, "natural consequences of acts preformed for narrower and more immediate ends,"[3] yet failed to be heeded. History is too soon forgotten, dooming it to repeat itself. Marsh's statement, "Evil effect of too extensive clearing was so early noticed, the lessons seems to have been soon forgotten,"[4] could be applied to modern context and still be completely relevant. We continue to deforest massive portions of land, with knowledge of its permanent damage, to meet our immediate ends and disregarding the future. I hope to have shown Marsh's revolutionary notion that the mistreatment of the land by the Romans was a cause in the decline of the Empire, and value of historical hindsight.

[3] Marsh, *Man and Nature*, 15.
[4] Marsh, *Man and Nature*, 216-7.

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